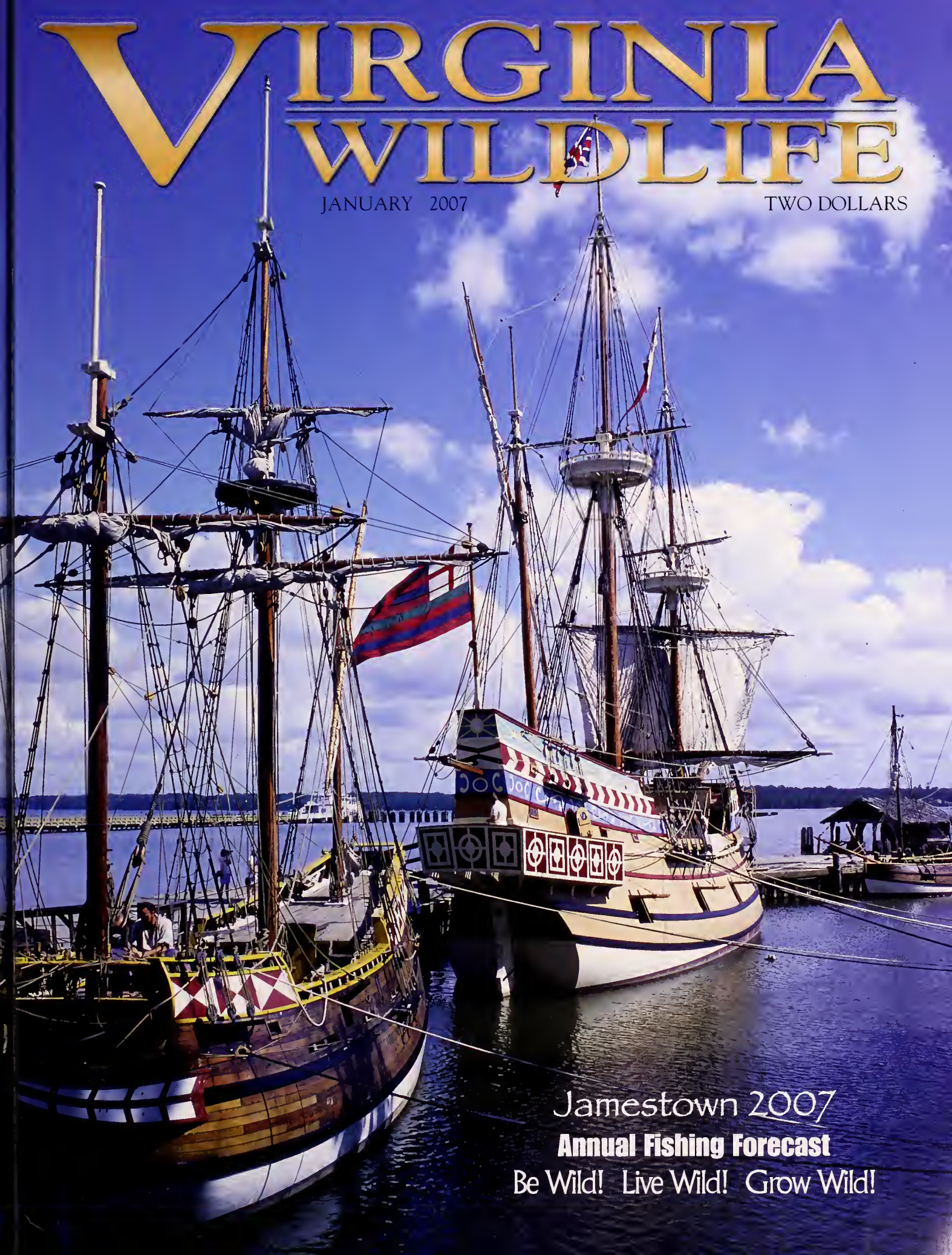
VIRGINIA WILDLIFE

JANUARY 2007

TWO DOLLARS



Jamestown 2007

Annual Fishing Forecast

Be Wild! Live Wild! Grow Wild!

J. Carlton Courter, III

Director

It is my pleasure and honor to have this opportunity to share my thoughts and address you each month about some of the great work that the Virginia Department Game and Inland Fisheries is doing. As many of you may know farming and a great love for the outdoors runs deep in my family. Having served the past 12 years as Commissioner of the Virginia Department of Agriculture and Consumer Services, along with being a lifelong hunter and conservationist, I can promise you as your new Director, I will be placing my full attention and efforts to insuring that Virginia's wildlife and natural resources will be well cared for, not only for those who enjoy it today, but also for future generations to come.

Two months have passed since I joined the Department and I am amazed at how busy our dedicated staff of biologists, law enforcement officers and support staff are. The general firearms hunting season will shortly be coming to a close and already our fisheries biologists are gearing up for another great fishing season. I hope that you have the chance to look over the 2007 Freshwater Fishing Forecast in this issue. It's full of useful information that has been supplied by our fisheries biologists to put you on the right track for another year of angling adventures.

I am also excited to report that the Department recently completed the first wetland restoration project financed by the new Virginia Migratory Waterfowl Conservation fund. During the 2005 Session of the Virginia General Assembly, legislation was passed requiring the Virginia Department of Game and Inland Fisheries to create and require a "Migratory Waterfowl Conservation Stamp" for individuals hunting waterfowl in Virginia. A portion of the funds raised from the sale of each stamp would go directly into helping restore valuable wetlands in Virginia.

Cooperating with partners, including the Town of South Boston, Ducks Unlimited, the U. S. Fish and Wildlife Service via The North American Wetlands Conservation Act and private cooperators, the Department restored over 30 acres of wetland habitat on property owned by the South Boston Industrial Development Authority. The site is situated on the floodplain of the Dan River and was previously utilized for row crop agriculture. Future management plans incorporate the use of a water control structure to mimic natural water movements on the site. Natural vegetation will be allowed to colonize the site providing valuable food resources for a variety of wildlife species including waterfowl, wading birds, furbearers, reptiles and amphibians.

The Town of South Boston will manage the site and plans to have the site open to the public for educational and recreational purposes including visits from school groups. The site will be named the Biggy Hunt Memorial Wetland Area, after F. W. (Biggy) Hunt, a lifelong conservationist and supporter of wetlands and wildlife in Virginia, who passed away in 2003.

Following completion of the construction, Town Manager Ted Daniel stated, "This waterfowl conservation project is exactly what the Town intended for the area when it purchased the property several years ago." Biggy Hunt's wife, Elaine, remarked that Biggy worked his whole life on waterfowl protection and this project is a wonderful tribute to him. She said that Biggy would be very proud that his Halifax County and State friends would undertake such a project for him.

This project is the first, of what I hope will be many wetland restoration projects completed with the use of funds from this new stamp. It is also one of many examples that I hope to bring you in upcoming issues of *Virginia Wildlife* that will highlight accomplishments by the Virginia Department of Game and Inland Fisheries and will assure you that we are working hard for you and for future generations.

Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.

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About the cover: Moored along the banks of the James River at the Jamestown Settlement Museum, replicas of the *Susan Constant*, *Godspeed* and *Discovery* represent the very essence of modern America and how it took root in 1607, 13 years before the Pilgrims founded Plymouth in Massachusetts.

The Jamestown 2007 celebration is designed to highlight and capture the spirit, imagination and diversity of Americans. A myriad of special celebrations have been developed that will showcase Virginia's unique role as the birthplace of modern America.

For more information about Jamestown or the 2007 celebration visit: www.americas400thanniversary.org or www.historyisfun.org.

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VIRGINIA WILDLIFE

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Special Trout Guide

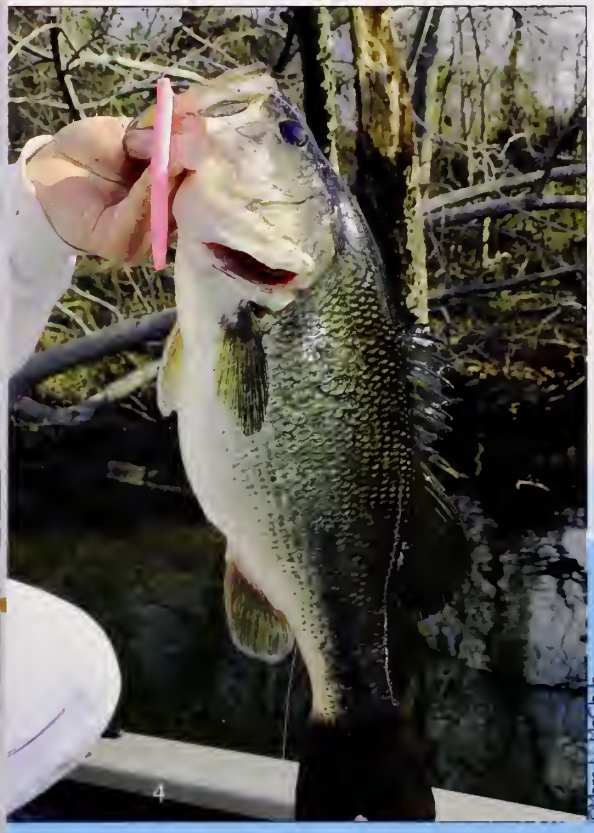
To offer greater access to anglers interested in trout fishing information in Virginia, the Department now publishes the Trout Guide in the "Freshwater Fishing in Virginia" regulation booklet. Please visit one of the Department's many hunting and fishing licenses agents or call (804) 367-9369 for a copy.

Virginia's 2007 Freshw

Virginia's fishing opportunities abound throughout the state. This forecast shines a light on the species and locations available to anglers.

by Marc N. McGlade

If you are a regular reader of *Virginia Wildlife*, then you obviously are enamored with the Old Dominion's fins, flora and fauna. The Commonwealth rivals any state in the country when it comes to quantity, quality and diversity of fish species for the freshwater angler. Streams, tidal rivers, creeks, sprawling lakes and reservoirs, ponds, nontidal rivers and more dot the scenery across Virginia's 450-mile-wide swath. Mountain trout, black bass, sunfish, perch, pike and other species are plentiful in this outdoors-rich state.



©Marc N. McGlade

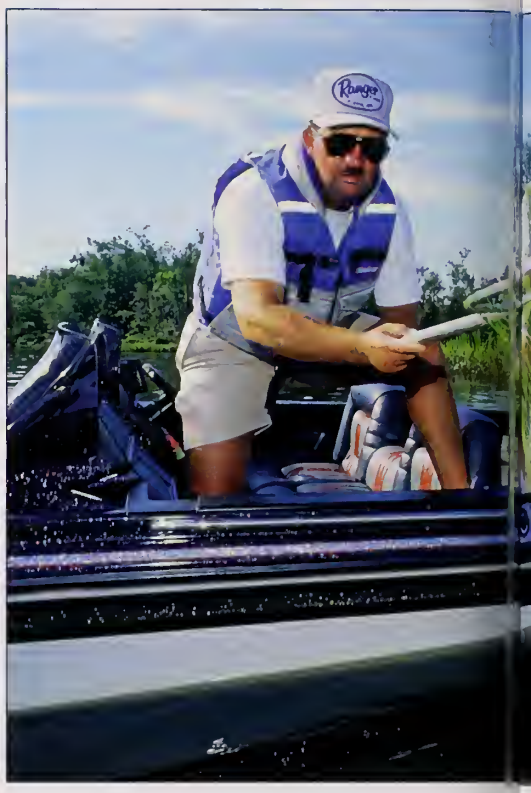
The folks with their fingers on the pulse of Virginia's freshwater fisheries—the fisheries biologists from the Virginia Department of Game and Inland Fisheries—have provided a statewide scan across the Commonwealth, broken down by the regional areas they support. The following is a synopsis of what anglers can expect during 2007.

Region I - Tidewater

Fisheries biologist Bob Greenlee manages a sweet slice of fishing in the Coastal Plain of Virginia. Greenlee's quick-and-dirty forecast says to look out for the tidal James and Chickahominy rivers in 2007. He indicates the 2004 and 2005 year-classes for largemouth bass are among the strongest the Department has seen in these rivers. That should translate into increased angler catch rates in 2007, specifically for 12- to 15-inch largemouths.

"The good news is since the drought broke in late 2002, consistent recruitment has occurred in tidal river bass populations," Greenlee says. "In fact, young-of-year (YOY) and age-1 fish dominated the catch of largemouth during fall 2005 electrofishing surveys of the tidal Chickahominy (71 percent), James (68 percent), lower tidal Rappahannock (81 percent) and upper tidal Rappahannock (63 percent) rivers."

He explains that the recruitment variability of tidal bass fisheries is dynamic, influenced by freshwater flow regimes and is quite unpredictable. Habitat in these systems can be at the whim of wind and storm surges associated with coastal storms and hurricanes. Greenlee suggests anglers stay keenly aware of these dynamics and



be ready to shift their strategies to adapt to new conditions.

"Anglers unfamiliar with the tidal James should be aware that some of the best largemouth fishing in this system can be found in tributaries from the Appomattox River down to Upper Chippokes Creek," he says. "Tributaries below this are more likely to be impacted by drought-related spikes in salinity, and thus have only marginal habitat during dry periods."

Fishing for largemouth in the main stem of the James is best above Hopewell; below this, there are only isolated pockets of suitable bass habitat available in the river. Suitable largemouth habitat exists throughout much of the tidal Chickahominy and its tidal tributaries, though the lower Chickahominy experienced declines in submerged aquatic vegetation beds during the 1990s.

Greenlee says the Rappahannock River has slower growth and

ater Fishing Forecast

Pamunkey River ©Dwight Dyke

lower electrofishing catch rates for largemouth than the Chickahominy and James. However, as in those tidal rivers, the tidal Rappahannock largemouth population has strong 2004 and 2005 year-classes ready to move into the fishery during the next few years.

"And, with anglers reporting good catches of bass above Route 301, this fishery was showing signs of improvement in 2005," he adds. "These angler reports match findings of VDGIF biologists, which indicate two consecutive years of good recruitment in the largemouth population and increasing catch rates in electrofishing surveys above Route 301. As in the tidal James, the lower Rappahannock main stem below Portobago Bay has only limited areas of suitable largemouth habitat."

Greenlee ranks the tidal rivers for largemouth bass in the following order: James River and tributaries (rapid growth rates; bass are 2 inches longer than those of similar age in the tidal Chickahominy; good numbers of bass to 4 pounds; more bass in the 4- to 6-pound range than the tidal Chickahominy); Chickahominy River (angler catch rates have improved, with two consecutive strong year-classes moving into the fishery); Pamunkey River (largemouth population experiences slower growth and fairly stable recruitment compared to the James, Chickahominy or Rappahannock; a very strong 2002 year-class moved into the fishery in 2006); Rappahannock River (slower growth and lower catch rates; recent angler success is generally limited to the tidal section above Route 301); Lower Dragon Run/Piankatank River (a small and inaccessible fishery, but recent surveys indicate stable recruitment and a good number of largemouth greater than 15 inches in length); Mattaponi River (very low bass catch rates in recent electrofishing survey work, with largemouth concentrated from just above Aylett to just downstream of Walkerton).

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"As for blue catfish, they continue to increase in size in the tidal James," Greenlee says. "Any of the major tidal rivers in the District (Rappahannock, Mattaponi, Pamunkey, James and Chickahominy) will produce an abundance of blue cats for anglers fishing fresh gizzard shad. The James can be expected to yield 50-pound-plus blue cats on a regular basis, and anglers are starting to pick up the occasional 80-pounder."

Fisheries biologist Scott Herrmann says the various tidal rivers (those profiled above) provide the majority of fishing opportunities in Region I, within his district. For anglers interested in fishing flat water, he recommends Chickahominy Lake, Beaverdam Swamp Reservoir, Diascund Creek Reservoir and Little Creek Reservoir.

"These large reservoirs offer anglers a variety of species to target," Herrmann adds. "Chickahominy Lake attracts anglers that are interested in fishing the heavy cover of cypress trees and hydrilla flats in search of largemouth bass, chain pickerel and bowfin. Beaverdam Swamp Reservoir has been a popular destination for anglers looking for good bass and black crappie action. Diascund Creek Reservoir provides good action for bass, chain pickerel and black crappie, and Little Creek Reservoir has been drawing in anglers with its good striped bass fishery as well as quality yellow perch and redear sunfish populations."

Herrmann advises anglers more accustomed to fishing smaller bodies of water to try Chandler's Millpond, as this 75-acre impoundment located in Westmoreland County can offer a quality fishing trip. The electric trolling-motor-only pond is open to fishing 24 hours a day. There is abundant shoreline cover in the form of

fallen trees and patches of lily pads. It is rather shallow with an average depth of 6 feet. The 2005 electrofishing survey revealed a quality bass fishery with trophy bass potential. During four days of sampling, 473 largemouth bass were collected and 162 of those bass measured larger than 12 inches in length. Of those 162 bass, 108 were greater than 15 inches in length and 22 bass were larger than 20 inches in length. The largest bass collected in the electrofishing samples measured 21.8 inches and weighed 7.48 pounds.

"The majority of the larger bass were found along the western creek arm," says Herrmann. "The bass were feeding heavily upon large, gizzard shad. The abundance of shad and bluegill provide enough forage for the bass population. The catch-and-release regulation has been lifted at Chandler's Millpond, and there is currently a 12- to 15-inch slot limit. Anglers are encouraged to practice as much catch-and-release as possible to maintain the number of quality bass in the fishery."

VDGIF's 2005 sampling also revealed decent numbers of 5- to 8-inch bluegills, as well as 6- to 8-inch redear sunfish. Limited numbers of black crappies were collected in the sample, but most of the crappies were in the 8- to 10-inch range.

Herrmann also singles out Beaverdam Swamp Reservoir, a 635-acre water supply reservoir for Gloucester. This reservoir has been known to produce trophy largemouth bass.

Mattaponi River ©Dwight Dyke

"The bass fishery is not as productive as it once was," he explains, "but it still yields a fair number of trophy bass each year. The 2006 electrofishing samples showed increased numbers of 2- to 4-pound bass when compared to the previous sample from 2005. Being a relatively new reservoir, Beaverdam hit its trophic upsurge with great year-classes of bass and good growth rates a few years back. The natural cycle has brought the reservoir back down to reality. The numbers of 10-pound-plus bass have dropped off, but there are still decent numbers of 6- to 8-pounders."

The reservoir has areas with large stands of flooded timber that provide great habitat for largemouth bass and other fish species. Herrmann says the reservoir has an abundance of 12- to 16-inch bass to keep anglers interested in case the lunkers are tight-lipped. Shore-bound anglers have available to them a fishing pier and various shoreline areas. The Ranger Station rents boats, and trolling motors can be used on private boats; however, outboard engine use is not permitted.

Farther to the south, fisheries biologist Eric Brittle says his fisheries are not the typical bass-bluegill-catfish fisheries.

"Early in the year, anglers can find good numbers of yellow perch and crappie in the Northwest River," Brittle says. "Live bait and jigs tipped with live minnows are your best bet to catch quality fish. Schools of yellow perch and crappie tend to move throughout a day, so if you can't find fish right away, keep searching until you do."

Later in the spring, shad fishing is the best bet, according to the biologist. The hickory and American shad runs on the Nottoway River in Southampton County is the best place to find 16- to 22-inch fish. Narrow channels where swift water is flowing around large woody debris can be very productive. He recommends shad darts, spoons and spinners as the lures of choice.

Later in the summer, when bass fishing gets tough, Brittle recommends angling for bowfin at the Blackwater River.

"While not the best 'table fair,' bowfin are second to none when it comes to putting up a great fight," he adds. "Make sure you have heavy-duty tackle. Bowfin are willing to strike typical bass lures, but the best are jigs, weedless worms and spinnerbaits. Fish in excess of 6 pounds are common and a 10-pounder will make anyone's day."

Beaverdam Reservoir Park ©Dwight Dyke

Chad Boyce, a fisheries biologist in Chesapeake, is responsible for the management of the public fishing lakes from Greensville County to Virginia Beach, south of the James River.

"The top overall lake for my district would have to be Lake Prince," Boyce says. "Prince seems to be very consistent in producing quality largemouth bass year after year. Prince is also stocked annually with striped bass, offering a good fishery in the colder months, although the striper fishery in Western Branch (Reservoir) is more robust. Burnt Mills (Reservoir) offers some of the best early spring bass fishing in the area and will produce bass throughout the summer."

The Department sampled Burnt Mills in spring 2006 and collected a good number of bass, with five meas-

uring at least 22 inches in length. He says Western Branch is a great lake for quality sunfish, such as redear (shellcracker) and bluegill in the summer months, and offers some good striper fishing during the fall and winter.

"Lake Whitehurst, in Virginia Beach, is sampled each year for walleye abundance and distribution, and this year's sample was average with good numbers of walleye with a few fish measuring more than 21 inches," Boyce says. "Walleye fishing in Whitehurst can be outstanding during the spring and fall months when these fish are most active in the lake."

Pamunkey River ©Dwight Dyke

©Marc N. McGlade

Region I Sleeper: Largemouth bass at the Lone Star Lakes. The trolling-motor-only lakes are old borrow pits, with steep shorelines. The Department sampled Finger Lake in spring 2006 and found excellent numbers of largemouth bass. Boyce says the fish in this lake are beautiful, as their coloring is vivid due to the gin-clear water. Parts of the lake are shallow and full of submerged grasses, and bass can be easily seen. He indicates the Finger Lake boat ramp is paved, but very steep, making four-wheel drive a necessity. Others include Northwest River for yellow perch and crappie; largemouth bass at Chandler's Millpond.

Region II - Southern Piedmont

Fisheries biologist Dan Wilson from the Forest office indicates Leesville Reservoir has an excellent catfish population that is under utilized. White, channel, flathead and blue cats all call Leesville Reservoir home.

"Population numbers are in the order listed, whereby the highest catfish numbers are white cats with channels second, flatheads third, blues fourth or closely matching the flathead numbers," Wilson says. "We do not see large blue catfish, but some of the flatheads reach 20 to 30 pounds. There are high numbers of white catfish and the average size is very good for this species, with most fish between 14 and 19 inches (in length). The channel catfish population is very good, with average sizes ranging from 14 to 23 inches."

Two more species deserving ink at Leesville are walleye and yellow perch. According to Wilson, Leesville produces the best yellow perch fishing in the region with many fish reaching 12 inches in length. He says the walleye population is doing well, as some specimens measure as long as 24 inches, with an occasional fish topping 6 to 7 pounds. He advises anglers to concentrate their efforts between the Leesville Dam and approximately 6 miles upstream.

"With the exception of possible seasonal transitions, Leesville Reservoir fish populations are not very good in the upper one-half of the reservoir due to cold water discharges from Smith Mountain Lake, major silt loads eliminating most of the deeper water structure in this area and nutrient inputs into the reservoir originating from the Pigg River," Wilson explains.

Leesville can be difficult to fish due to daily water fluctuations of 10 feet. When the water level is high, many fish suspend and relate to shoreline structure less frequently than in other stable reservoirs. Wilson recommends anglers plan to search open and deeper water for most species; therefore, depth finders are an important tool in this reservoir. Underwater and shoreline structure are likely to be productive when lake levels are low.

In Wilson's district within Region II, the two top spots for largemouth bass are Smith Mountain Lake and Philpott Reservoir. Fishing pressure is high in both reservoirs, so anglers need to prepare accordingly. Other than early spring during the spawn, the best bass fishing occurs in deeper water at depths of 15 to 25 feet, he says.

Wilson states that walleye fishing at Philpott is excellent in May and June, especially at night. Daytime angling during these months dictates a deeper presentation, preferably with bottom-bouncers and worm har-

Powhatan Creek ©Dwight Dyke

Virginia's Top Bass Haunts by Region

(largemouth waters unless otherwise noted)

- Region I - James River (and tributaries), Chickahominy River, Beaverdam Swamp Reservoir, Lake Prince and Burnt Mills Reservoir
- Region II - Smith Mountain Lake (largemouth and smallmouth), Philpott Reservoir (largemouth and smallmouth), Briery Creek Lake, Buggs Island Lake and Sandy River Reservoir
- Region III - Claytor Lake (largemouth and smallmouth), New River (smallmouth) and North Fork Holston River (smallmouth)
- Region IV - Lake Frederick and Lake Moomaw (largemouth and smallmouth)
- Region V - Lake Anna, Lake Orange, Germantown Lake, Lake Chesdin and Lake Gordonsville

Regulations and More Information

- For questions regarding fishing regulations, creel limits or any other fishing-related inquiries, contact VDGIF at (804) 367-1000, or go online at www.dgif.virginia.gov.
- Effective July 1, 2006, all freshwater fishing licenses sold by VDGIF are valid for one year from the date of purchase, except for the National Forest Permit.
- Always check regulations that pertain to a specific body of water; regulations can vary from location to location.

nesses working the underwater structures and points, adjacent to the shoreline.

"Summertime walleye move significantly deeper and can be more difficult to find," he says. "Anglers catch the bulk of walleye at Philpott between the dam and mile marker 4."

Wilson suggests sunfish enthusiasts cast their lines at Thrasher Lake in Amherst County, as this 36-acre lake sustains an excellent bluegill and redear sunfish population, with many sunfish measuring 8 inches long.

"The Southern Piedmont region offers tremendous fishing for largemouth bass, crappie, sunfish and channel catfish in most lakes," says Vic DiCenzo, a fisheries biologist from the Farmville office, also serving Region II. "Just about every lake in this district holds citation largemouth bass, but obviously, some are much better than others."

©Dwight Dyke

Other species of interest that DiCenzo recognizes are found in certain lakes, such as: striped bass in Buggs Island Lake and Lake Gaston, walleye in Gaston and the Staunton River, flathead catfish in the James River and blue catfish in Buggs Island and the Staunton River.

"Spring and fall seem to be the best in this area for quality fish, and summer is better for catch rates," he explains. "Bass anglers hoping to land a trophy bass have their best chance at Briery Creek Lake, but all lakes are capable of producing citations. Fish for big largemouth bass from March to mid-April when the water temperature nears 60 degrees, and choose jigs or soft plastics."

Region II Sleeper: Fishing for catfish (white, channel, flathead and blue) at Leesville Reservoir; largemouth bass at Bear Creek Lake; black crappie at Holliday Lake; sunfish at Great Creek Watershed Lake (Lawrenceville); and channel catfish at the Staunton River.

Region III - Southern Mountain

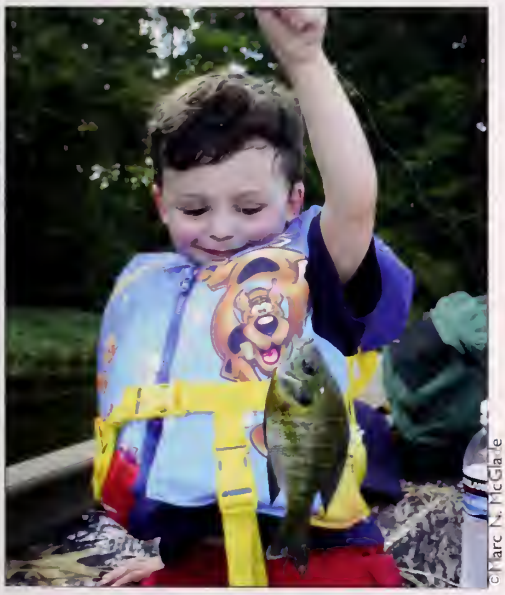
John Copeland provides his slant on the state of the Commonwealth for his area within Region III. Regarding largemouth bass, Copeland says Claytor Lake is certainly the best spot in the New River Valley. The size ranges of largemouth bass there are comparable to other large impoundments in the state, like Smith Mountain and Buggs Island, but the number of largemouth bass are lower, since they share Claytor Lake with smallmouth and spotted bass.

As for bronzebacks, Region III is a happening area. Places like the New River, Claytor Lake and the North Fork Holston River are very good choices. Copeland indicates from January 1, 1995, to December 31, 2005, (1995 was the first year VDGIF accepted length citations),

the New River led the pack with 1,679 citation smallmouth bass during that span. The James River was second with 1,303 citations, followed by Smith Mountain Lake totaling 370 and Claytor Lake with 246. The North Fork Holston River was eighth on the list with 108 citations.

"Smallmouth bass fishing in the New River during 2007 should be good, with good year-classes from the 1996 to 1998 period moving into trophy-size ranges and excellent year-classes from 2004 and 2005 providing good catch rates for 6- to 12-inch fish," Copeland explains. "The New River deserves some recognition for quality rock bass fishing, as well. Using the same search of citation years, the New River ranked third statewide for citation rock bass. The other top contenders were all waters known to contain Roanoke bass, the rock bass' close cousin that reaches larger sizes."

Copeland believes angling for rock bass in the New River during


©Marc N. McGlade

2007 should be good, with good spawning conditions in 2004 and 2005 permitting rock bass numbers to rebound to levels comparable to those in the river during the late 1990s.

One of Copeland's colleagues, fisheries biologist Joe Williams, says the Department has been stocking the native New River strain walleye into Claytor Lake and the New River upstream to Fries Dam for the last five years.

"We've stocked close to 400,000

New River ©Dwight Dyke

walleye fingerlings in the Claytor Lake-Upper New River system during the last four years," Williams says. "Springtime electrofishing surveys this year (2006) resulted in the capture of many walleye from the previous three years of stockings. Angler reports indicate excellent success catching walleye throughout the river. Most anglers caught walleye below the 20-inch minimum size, but that should change in the next couple of years as the fish from the first few stockings continue to grow. The state-record walleye (15 pounds, 15 ounces) was caught in the upper New River in 2000."

While Williams stresses the New is the best place to fish for walleye in this district, Claytor Lake is second. The New River is known for its diversity, and Williams says it is also the No. 1 muskie fishery in the district.

" I'd go so far as to say it's the No. 1 fishery in the state," he adds. "The section downstream from Claytor Lake is more heavily stocked than upstream, and holds a more abundant fishery. The size limit for muskie on the New changed from a 30-inch minimum to a 42-inch minimum on July 1, 2006. Muskie are stocked at all boat landings from Claytor Lake to the West Virginia line. Every pool throughout this stretch holds adult fish, with many reaching 40 inches or more in length. The state-record muskie (45 pounds) was caught in the lower New in 1989."

Gatewood Reservoir and Claytor Lake are Copeland's picks in the region for sunfish. Quality redear and bluegill are the showcase bream species at these impoundments. Population sampling at Gatewood indicates a quality fishery for bluegill and redear sunfish. Late May to mid-June is the best time to fish for these species. He says Claytor Lake does not produce bluegill citations that rank it in the top tier of Virginia, but anglers can expect daily limits of quality bluegill in the 6- to 7-inch-size range.

It sounds like a broken record, but Claytor Lake deserves recognition for its channel catfish fishery, too. According to Copeland, from 1995 to 2005, Claytor Lake ranked third in the state behind the Potomac and James rivers with 186 channel catfish citations. The New River ranked seventh during the same period.

"In my experience, the channel catfish fishery is more significant in areas upstream from Claytor Lake than downstream," Copeland says. "When I examined citations over the past 5 years (2000-2005), Claytor Lake jumped to No. 1, with 134 citations, and the New River earned a respectable sixth, with 48 citations."

Claytor Lake also has striped bass and hybrid-striped bass inhabitants, according to Copeland. Having both basses adds to the diversity of its striper fishery.

"When it comes to exotic species

fisheries, Claytor Lake is a contender for the No. 1 slot with the James River for carp," states Copeland. "Claytor Lake yielded 73 citation carp from 1995 to 2005, with the James River taking the No. 1 slot with 90 during those same years. Add the New River carp citations during the same period (39), and the New River-Claytor Lake system is the top producer for carp citations."

George Palmer is the fisheries biologist in the know regarding trout in this region. Palmer oversees these treasured species in VDGIF's special regulation areas in District 6 of Region III.

"The South Fork Holston River and Whitetop Laurel Creek special regulation areas will provide excellent fishing for wild rainbow trout in 2007," Palmer says. "Both areas had high numbers and good flows in the past few years, and this should lead to great fishing in 2007.

"The Pound River special regulation area will provide good brown trout fishing as sampling has produced good numbers and sizes in the past few years."

South Fork Holston River ©Dwight Dyke

Region III Sleeper: A sleeper impoundment for largemouth bass in this district is 162-acre Gatewood Reservoir in Pulaski County. During Copeland's spring 2005 electrofishing sample, the size of largemouth bass available to anglers in this lake rivaled Claytor Lake, with higher densities of largemouth bass in Gatewood Reservoir, since it contains only largemouth and smallmouth bass. Rural Retreat Lake—a 90-acre impoundment in Wythe County—is the sleeper muskie water in this district. It is not a large lake, but contains a good population of torpedoes. Gatewood again makes the sleeper list for redear and bluegill.

Region IV - Northern Mountain

"Region IV covers the Shenandoah Valley, the Blue Ridge Mountains and the Alleghany Highlands, so most of the waters in this area are headwater trout streams, small impoundments and the Shenandoah and upper James River watersheds," says fisheries biologist Paul Bugas. According to Bugas and fellow fisheries biologist, Steve Reeser, Lake Frederick and Lake Moomaw are the top two black bass waters in the region.

"At Moomaw, you can catch trophy largemouth and smallmouth," Bugas says. "Frederick still impresses us."

"Lake Moomaw is Region IV's largest body of water, but the region is also comprised of many small impoundments (20 acres or more), including: Lake Frederick, Lake Arrowhead, Lake Laura, Lake Shenandoah, Lake Robertson, Lower Sherando Lake, Douthat Lake, Upper Recreation Pond, Lower Recreation Pond and Elkhorn Lake," adds Reeser. "As for rivers, Region IV has North Fork Shenandoah River, South Fork Shenandoah River, Shenandoah River, Maury River, Jackson River and Cowpasture River."

Bugas and Reeser indicate the Department manages several of the small impoundments for trout and bass, so largemouth bass fishing can be quite good in these clear-water lakes.

"For instance," Bugas explains, "5-pound largemouth bass can be caught at Elkhorn Lake, Lower Sherando Lake and Douthat Lake. Douthat also produces some quality channel catfish and chain pickerel. It's a very busy place from April to June for trout, but the summer months can yield some good mixed creels."

Lake Frederick continues to impress biologists with outstanding samples of largemouth bass, redear sunfish, bluegill and walleye. Lake Shenandoah, known for stunted sunfish and mediocre bass, was surprising last spring (2006), with good catches of largemouth bass and an occasional trophy muskellunge. Channel catfish, redear sunfish and largemouth bass are the "big three" at Lake Robertson, according to both biologists. Known as a difficult lake to fish due to its water clarity, Lake Robertson has an ample supply of quality-size bass.

"Lake Moomaw supports an amazing array of sportfish," Reeser says. "Downriggers, deep baiters and jump fishermen catch large brown and rainbow trout during late winter through early summer. Large, robust smallmouth bass suspend near rocks and cliff areas. Largemouth bass are plentiful in the flats and woods around the lake, and panfish abound in the shadows under the docks and in quiet coves."

Anglers who like to release black bass, but crave a tasty fish dinner, seek yellow perch at Moomaw (the current state-record yellow perch hails from Moomaw, a 2-pound, 7-ounce giant). Black crappie, channel catfish and large mirror carp are other targets for anglers at this beautiful lake.

The Shenandoah River, and its two major forks (North and South), continues to rebound from fish kills that plagued it in 2004, 2005 and 2006, the biologists say. The river produced a huge year-class of smallmouth bass in 2004 and they showed up in large numbers in 2006.

Lake Fredericks ©Dwight Dyke

"By the summer of 2007, barring any widespread kills, the river should be full of 12-inch-plus smallies," Bugas says. "Channel catfish are big and plentiful in the South Fork from Port Republic downstream to Front Royal, and in the main stem all the way to the West Virginia line. Panfish, such as the feisty redbreast sunfish and bluegill, were hit hard by the 2005 kill. The North Fork Shenandoah is fishing well above Woodstock. Undetermined causes of a widespread fish kill between Woodstock and Strasburg have decimated most species of fish. Biologists, educators and citizens have formed a Fish Kill Task Force to determine the cause(s) of the water quality woes in the watershed. Meanwhile, look for improving conditions in the South Fork and main stem Shenandoah in 2007."

Smallmouth bass are also abundant in the Maury River from Rockbridge Baths to Glasgow. Anglers catch occasional trophies from the Maury, but the river is a factory for smaller bass. The Jackson River, downstream from Covington, also produces some fine trophy smallmouth, as well as plump rock bass and redbreast sunfish. Angler access has improved from Covington to Clifton Forge.

Region IV Sleeper: The Recreation Ponds at the Dominion Virginia Power project in Bath County. Two side-by-side ponds offer lots of black bass, quality channel catfish and good bluegill and redear fishing.

Lake Anna ©Dwight Dyke

Region V - Northern Piedmont

The keynote fishery of Region V is Lake Anna. Fisheries biologist, John Odenkirk, says based on recent sampling that the largemouth fishery is at the highest level documented, and anglers should expect good numbers and size of bass from this popular reservoir.

"Additionally, striped bass stockings have been very successful lately, and this fishery should be above average," he adds. "Black crappie and catfish fisheries should also provide average to above average angling."

Odenkirk explains that after a disappointing year for anadromous shad and herring on the tidal Rappahannock in 2006, anglers should expect more hickory and American shad in 2007. He believes this should be a result of stocking programs and better year-classes returning to spawn.

"Also, expect channel catfish, yellow perch, small striped bass and white perch to continue to be found further upstream from Fredericksburg as these populations build following Embrey Dam's demise," he says. "Smallmouth bass anglers should experience one of the best years in recent memory given the dominant 2004 and above average 2005 year-classes. Tidal largemouth fisheries should continue their recovery from drought periods of years past, and anglers should encounter larger and more numerous bass as a result of more stable river conditions, improving habitat and above average spawns."

Odenkirk says Northern Virginia anglers are privy to a new fishery: Hunting Run Reservoir. The reservoir measures 420 acres, and is an outstanding largemouth fishery.

"With large bass catch rates nearly equal to the perennial District leader (Burke Lake), this reservoir in Spotsylvania County should please many," adds Odenkirk. "Expect the county to have primitive public access open in spring 2007, and the bass fishery to be governed by a large slot limit."

Virginia's Urban Fishing Program, with its popular trout phase component, was reinstituted in late 2006 with trout stockings at Cook Lake in Alexandria. Odenkirk says to watch for expansions of this program in 2007, perhaps in Fredericksburg.

"Two other largemouth bass no-

©Marc N. McGlade

tables include Mountain Run Reservoir in Culpeper County and Lake Orange," he says. "For anglers looking for a true trophy (over 8 pounds), Lake Orange (and possibly Germantown Lake in Fauquier County) should be the destination in mind."

In a separate district from Odenkirk's, fisheries biologist Dean Fowler oversees the fisheries in the central part of the Old Dominion.

"The fisheries resources in this central district are dominated by small impoundments, but also includes 3,100-acre Lake Chesdin near Petersburg and a couple of trout streams," says Fowler. "Of the 22 small impoundments available to anglers, most are located in the Richmond and Charlottesville areas."

He indicates they are subjected to heavy fishing pressure, but annual stockings of channel catfish help provide anglers with good fishing action. Most, he says, also contain an abundance of small panfish that are enjoyable for youngsters to catch.

The small lakes in Albemarle County are also stocked with catfish. Fowler says most are somewhat infertile, but some contain notable fisheries.

"Chris Greene Reservoir has very nice crappie, while Beaver Creek Reservoir has the best bluegill fishery in the district," he adds. "Rivanna Reservoir, on the outskirts of Charlottesville, has good populations of bass and redear sunfish. Other small lakes of note include Gordonsville (Bowler's Mill), which offers excellent fishing for bass, crappie and hand-size sunfish, and Fluvanna Ruritan (Ruritan Lake), which offers a solid all-around fishery."

©Marc N. McGlade

Above: One notable addition to this year's fishing forecast is the snakehead fish, not to be mistaken with a bowfin (upper right). The snakehead fish is an undesirable exotic species that was illegally introduced to the waters of the tidal Potomac River system in Northern Virginia. They have no natural predators in our waters and reproduce rapidly. They also present a considerable threat to our native wildlife and ecosystems. The Department wants anglers to be aware of the identifying features of the species they are catching and to report any unusual fish caught. Call the Department's in-state toll-free number, 1-800-770-4951. Anglers should not release snakehead fish back into the wild.

The best largemouth bass fisheries in this district are lakes Chesdin and Gordonsville. Lake Chesdin has long been known for having an abundance of bass. Although fishing for them has become harder than it was a few years ago when abundant year-classes moved through the population and fishing pressure was lower, it does produce the fattest bass in this district. Lake Gordonsville is a relatively small lake (75 acres) with light fishing pressure. Recent sampling produced numerous bass in the 6- to 7-pound range, Fowler says.

Two trout streams, the Conway and Rapidan rivers in Greene and Madison counties at the western tip of this district, offer some outstanding fishing. Conway River has nice brook trout in its headwaters, and the lower reaches yield abundant brown trout as long as 19 inches. Rapidan River is well known for its native brook trout population, with some reaching 11 inches.

Fowler feels the fall line area of the James River in Richmond warrants mentioning, as well. He says the angling can be great for smallmouth and flathead catfish throughout much of the year, and in the spring, striped bass, American shad (which must be released), hickory shad and river herring are abundant.

"Whether fishing from a canoe, raft, boat or when wading, anglers need to be aware of the sometimes treacherous river currents and be very careful around the rapids and numerous low-head dams," he adds.

Region V Sleeper: Channel catfish in Lake Chesdin. Channel cats as large as 6 pounds are common, and regardless of size, all are plump. For those who enjoy a great day or evening of angling and some catfish for dinner, Lake Chesdin is hard to beat. ☐

Marc N. McGlade is a writer and photographer from Midlothian. Marc has been a regular contributor to Virginia Wildlife *since 1998, and is an avid angler who travels throughout Virginia and other parts of the South.*

Grayson Highlands State Park

The first in a series of picture perfect outdoor adventures.

by Megan McKinley
photos by Dwight Dyke

I sometimes wonder whether we are any happier now than people were two hundred years ago. Why shouldn't we be? We have running water, and toilets, hot showers, microwaves, video games and television. Certainly these things make us more comfortable, but happier? Is it possible we could get more satisfaction from maintaining a small homestead in the Appalachians, repairing a fence instead of watching a game, riding into town only for supplies rather than speeding to work every morning, cursing the traffic?

Meet Virginia

Unfortunately no one can definitively answer these questions. We live in a different time. But still, I find myself romanticizing the past when I look upon a quaint, well kept, 200-year-old homesite on this fall afternoon in Grayson Highlands State Park. When the leaves are turning on the hillside, when the temperature is just right, neither too hot nor too cold, imagining a simpler, more peaceful life comes naturally. I picture children running and laughing in the meadow and the sweet smell of burning wood drifting in the cool air. I can almost see the smoke from the chimney, a burley, bearded man rocking in a chair on the front porch, a flintlock resting by his side.

The early settlers of the Appalachians must have felt a sense of awe, standing atop these mountains that now encompass Grayson Highlands State Park. They must have wondered at the beauty of the turning fall leaves and the broad and uncharted lands that lay before them, but they must too have felt reservations about the impending winter and the trials they would face in this rough country. Now we can go back to our dry cars and our warm homes when seeking refuge from the elements.

Grayson Highlands State Park is located in the southwest portion of Virginia, far from most population centers in the state. The park consists of 4,822 acres of rugged mountaintop and fresh green meadows, old home sites and waterfalls. Nine separate hiking trails with access to the Appalachian Trail make Grayson Highlands popular with hikers. And with some trails allowing horseback riding, as well as stable area campsites equipped with covered stalls, the park is not lost on the equine loving population, or mountain bikers, for that matter, who will find trails where wild ponies seem unafraid of man and graze in open meadows.

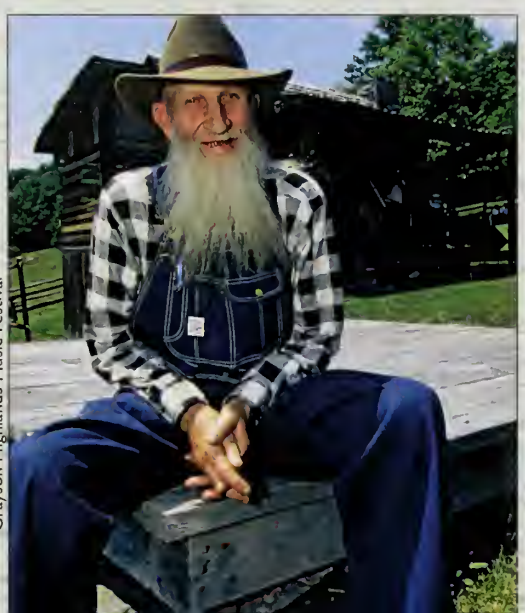
For those who hike with a fishing rod in tow, the park boasts nearly ten miles of trout streams containing native brook trout and wild rainbows. There is little doubt that settlers like Lee Massey, who lived in this area in the late 1800s with his wife and five children, relished the coming of spring, the wildflowers, and these bountiful streams. He and his family would have enjoyed breakfast of fresh, fried brook trout and eggs while a morning fog still lingered in the valley.

People come to the park no longer to settle a new frontier, but to visit and celebrate an old one. The park's amphitheater plays host to dozens of festivals from fiddling to fauna, bluegrass to basket weaving.

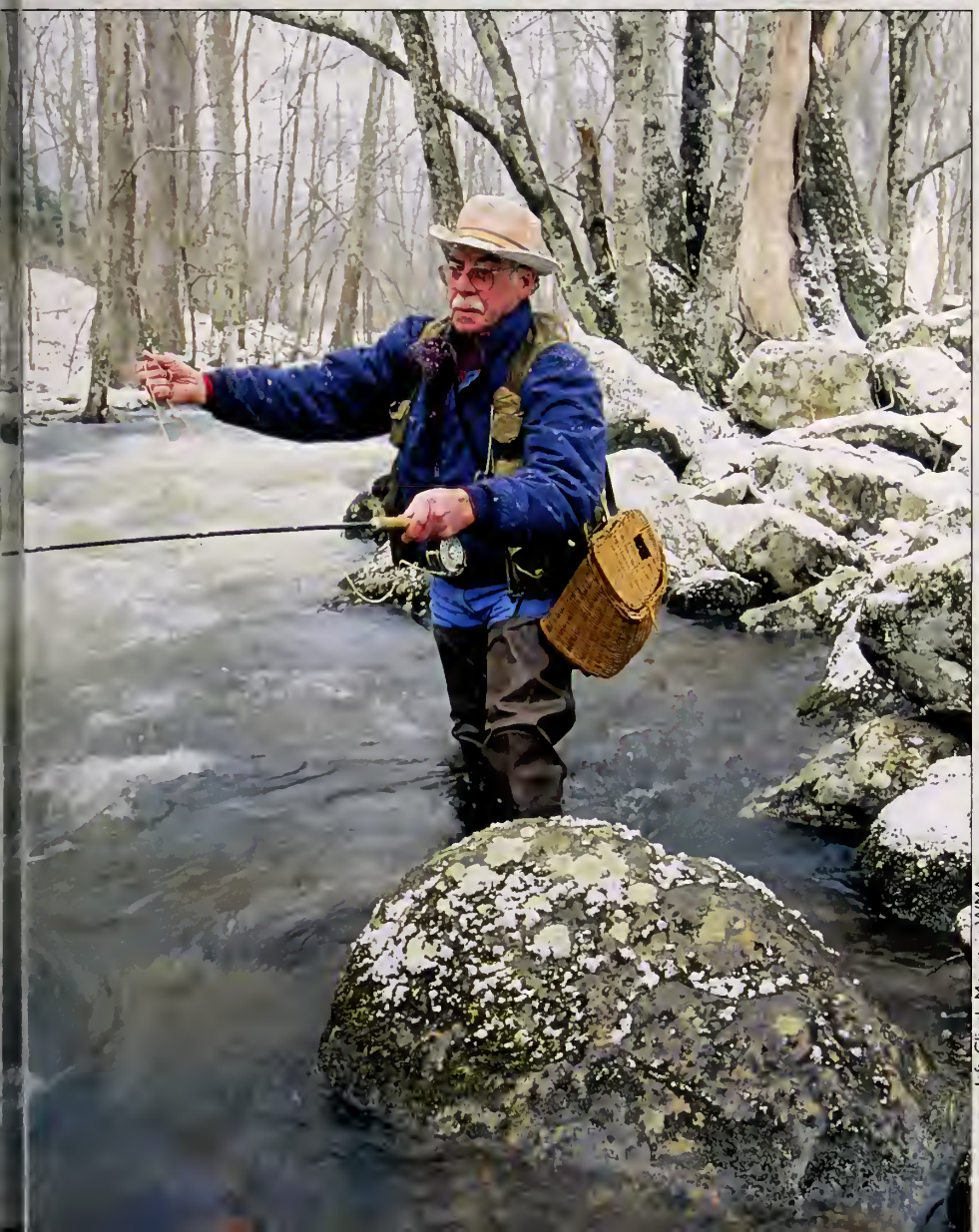
In the end, I am still not sure that I have answered my question. Are we happier now? Maybe it's a silly ques-

Grayson Highlands State Park

Grayson Highlands Music Festival


Grayson Highlands Music Festival

Grayson Highlands State Park



tion and not worth the thought one might waste on it. We can't go back. And I am not sure that we would want to. I appreciate our modern comforts as much as anyone. Still, I enjoy imagining those days and the people that carved out an existence in this rugged and beautiful country. □

Megan McKinley works as Director of Development for Blue Sky Fund, a foundation dedicated to providing outdoor opportunities for inner-city kids (http://bluesky-fund.org).

Helpful Web Sites

www.state.va.us/dcr/parks/graysonh.htm

www.virginia.org

left: Clinch Mountain WMA

Virginia Naturally

Getting Their Fe

The Dominion High Sch

Above: Extensive macroinvertebrate studies provide data used to monitor the health of Sugarland Run Stream.

You can take the school out of the country, but you can't take the country out of the school.

story and photos by Gail Brown

Dominion High School, located just outside of Washington, D.C., in suburban Loudoun County, first opened its doors in September 2003, to an enthusiastic staff and very diverse student body. To welcome their international families, Dominion High began a tradition—they purchased a flag for each country represented by members of their student body. Currently 76 flags hang in the main hallway. Yet, collectively the kids at Dominion are just like kids in any other American school; they listen to the same music and share the same likes, dislikes, problems and goals. And like teenagers across America, when the opportunity presents itself, acting on the values we can only hope have been absorbed, they do the right thing and make us very proud.

Dominion High is sleek and impressive, but the tiger's eye of the 87 acre campus is well hidden in the woods that border the fields behind the school. There, if you follow the path built by Eagle Scout Andrew Cebulski and area scout troops, past the outdoor classroom they constructed through the woods, you will find yourself at Sugarland Run Stream. The stream and surrounding floodplain immediately became the touchstone for Dominion's conserva-

et Wet
ool Story

Above: Flags at Dominion High School help say, "Welcome."
Below: Principal Brewer and teacher Laurie Gould learn the results of the day's activities.

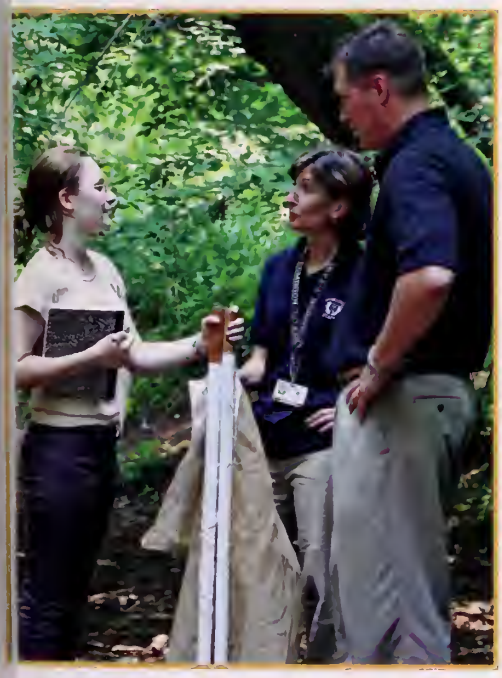
tion efforts, especially so to the students enrolled in Mary Young-Lutz's Environmental Exploration class.

In less time than it takes to text-message their approval, student demand for the third year environmental exploration elective exploded, enabling principal, Dr. John Brewer, to assign an additional teacher to partner with Young-Lutz, enabling more young enthusiasts to access the program. Class profiles reflect the varied interests, backgrounds and ability levels of the juniors and seniors seeking experience and knowledge of the natural world. But in a swirl of change one constant remains—students spending time in their outdoor lab at Sugarland Run Stream become dedicated supporters of the environment and very protective of the stream, plants and animals that they study.

Dominion's environmental sleuths follow deer trails through the woods, document areas of concern resulting from natural and man-made stressors and, if action is called for, strategize as to how to remedy the situation. Having noted the considerable erosion taking place at the stream banks, as well as closer to the school's fields, this year classes will fill the expanding ditches with recycled Christmas trees in an effort to stem the damage. Throughout the year careful measurements will help to document and evaluate the results of their efforts as they work to address this important issue. In that same area, several energetic young men, noticing a need and motivated to help, took it upon themselves to build a small bridge across a crevice; now those wanting to observe the resident red-tailed hawk can do so without trampling plants or small trees.

Helping others to learn the distinction between observing and reducing the human impact on the environment, as opposed to interfering with nature, is the cornerstone of Dominion's exemplary program. To this end, efforts to convert their unused courtyard into a refuge for lost or harmed animals continues with each new class. Currently, a student-built stone- and plant-encircled pond, rising like a shimmering oasis in the rear corner of the courtyard, now serves as home to one lone box turtle. Never again to be released into the wild since the location of his original home is unknown, the box turtle lives as king in this reptilian Utopia. Possibly victim of someone's misguided desire to keep him as a pet, this Eastern box turtle, like other cap-

Below: Dominion's trail provides opportunities to identify and study plant and animal life.



Above: The science department works together to integrate environmental studies across curricula.
Below: Efforts continue to document and solve erosion problems produced by the stream behind the school.

tured turtles, would struggle to return to its natural habitat if released. These once captive turtles often find themselves in great danger as they cross highways or come in contact with other threats when they try to return home. In all cases, Young-Lutz states, it is recommended that wildlife be observed and left to thrive in their natural environment.

Like all great programs, results rise or fall on administrative support and Principal Brewer has demonstrated his enthusiasm by providing a classroom complete with the latest technology. But it's the trees, the animals and the stream given credit for

Above: Students maintain journals and are working to develop field guides for the community.
Right: Students researched and built this screech owl box. Bird feeding stations and a chimney swift tower are also in place.

the academic success, maturity level and the ethics students demonstrate while working to protect our natural resources. "At the stream everyone is on task. Concerns about ADD just aren't an issue there," states Young-Lutz.

A prime example of the level of dedication felt by Dominion students occurred one fall day in 2005 when students arrived at the stream with expectations of performing routine water quality tests, only to find instead skewed dissolved oxygen levels and fish dead and dying. Although bells rang and buses left, every student that could stay remained to continue walking up the side of the stream until normal test results were noted. At approximately 6:00 p.m., and only after a computer search disclosed that the Department of Environmental Quality was the agency to notify and plans were put in place to do so, did the kids consent to leave for home.

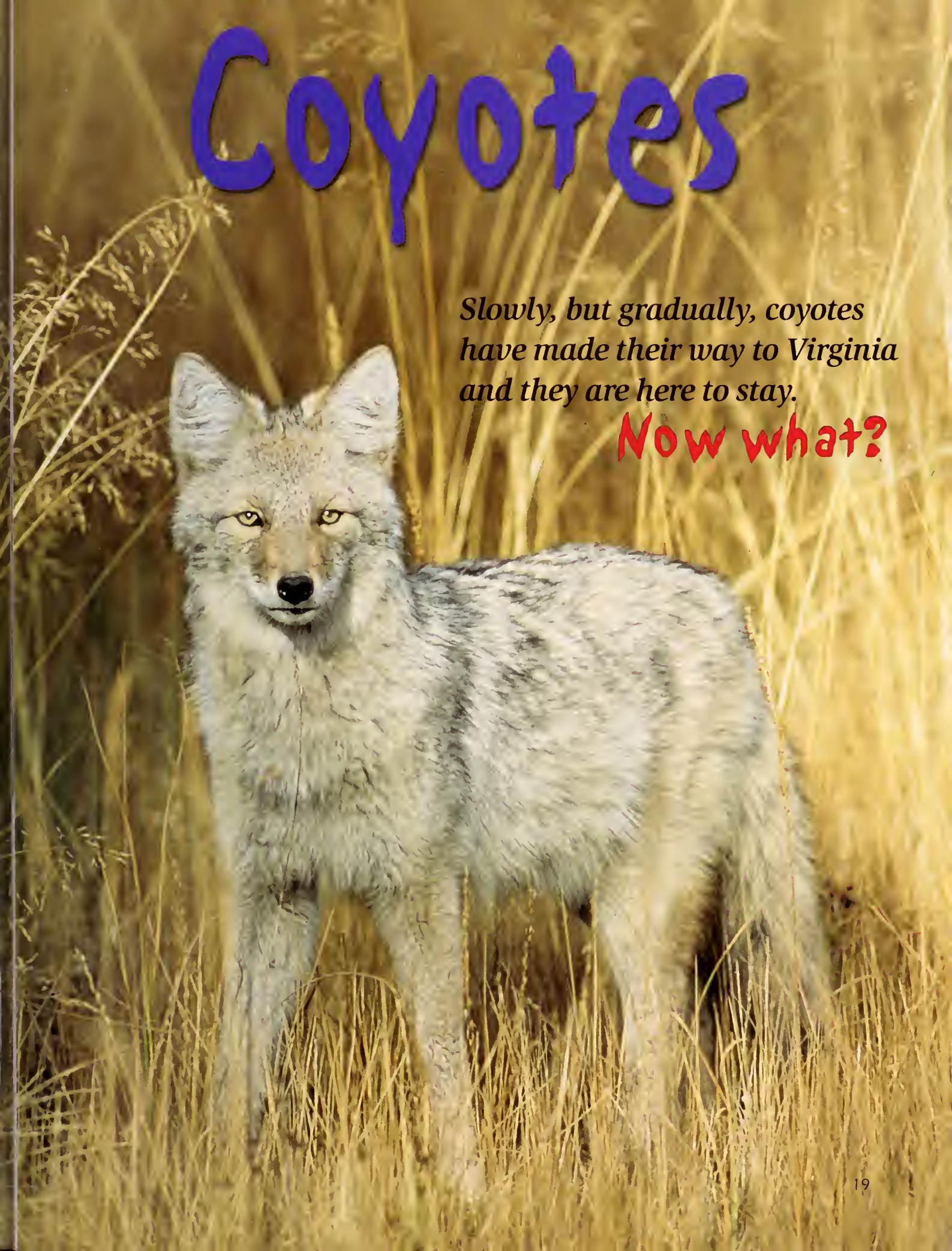
When our young adults step forward and assume a leadership role in identifying community problems and address concerns that impact all of our lives, an important step is taken in building the foundation not only of an educated citizenry, but a willing citizenry—one willing to become involved for the benefit of all. Sometimes it seems we hear a lot about kids not doing the right thing, or not acting in the manner we want them to act. But it appears that if they become involved with nature, given the opportunity, they make us proud every time. ☐

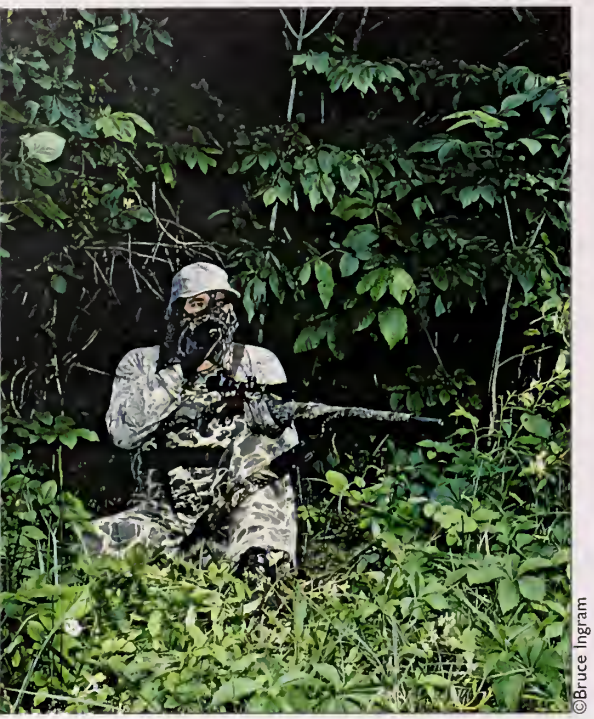
Gail Brown is a retired principal for Chesterfield County Public Schools. She is a lifelong learner and educator, and her teaching and administrative experiences in grades K-12 have taught her that project-based environmental programs teach science standards, promote core values, and provide exciting educational experiences for the entire community.

Coyotes

Slowly, but gradually, coyotes have made their way to Virginia and they are here to stay.

Now what?





©Bruce Ingram

by Bruce Ingram

The Botetourt County longbeard was making the mountainside shake with his gobbles, and the tom was on his way to where I sat, just 20 yards inside a field edge. Meanwhile, a hen milled about in front of me—a perfect "decoy" for the gobbler on the other side of the field. I was about to tag out for the season—or so I thought.

Silently and stealthily, two coyotes then eased into the opposite end of the field: the hen flew, the tom stopped gobbling, and the tag remained unused. Virginians had better become used to *Canis latrans* appearing anywhere at anytime because the species is here to stay. If we here in the Old Dominion can learn anything from the West's attempts to shoot, poison, trap and place bounties on this creature, it is that all these attempts at eradication failed.

Indeed, the coyote is now firmly entrenched throughout the Commonwealth. In far northwestern Virginia, Bath and Highland county sheepherders complain about this member of the wolf family. And Lee Walker, editor of this magazine, told me that he witnessed a coyote "within eyesight of the west bound entrance to the Chesapeake Bay Bridge Tunnel last year. He was sitting there looking for a way to get through the tunnel." Walker also said that two years ago one was killed on Interstate 295 about five miles from the Virginia Department of Game and Inland Fisheries' Richmond office. From every corner of the state, similar anecdotes exist.

How Coyotes Arrived in Virginia

Rumors are rampant not only in Virginia but across the Southeast concerning how coyotes reached our state and region. Some of the rumors go beyond the absurd. In Highland County, a tale circulated that insurance companies were releasing these animals so that deer numbers would be reduced, and the companies could pay less in claims.

Incredibly, one gentleman told me that the state was releasing not only coyotes but also cougars and "diamondback rattlers" and begged me to write about this *plot*. The images of insurance company executives in suits handling coyotes, and the Game Department receiving crates of coyotes, cougars and rattlers (perhaps even in the same enclosure) boggle the mind. The reality of how coyotes arrived is far different and less dramatic.

The conventional wisdom is that coyotes arrived in the Southeast by two ways: natural migration and releases by fox hunters. Mike Fies, furbearer project leader for the Department, offers historical insight.

"The first report of a free-ranging coyote in Virginia was in 1952 in the Burkes Garden area of Tazewell County," he says. "It supposedly killed 410 sheep before it was killed by a local hunter. This animal was most likely a coyote that escaped captivity after being imported from Oklahoma to a Virginia man who lived close to Tazewell County.

"There are numerous accounts of other coyotes being transported into the state during the 1950s and 1960s. In some cases, coyote pups were inadvertently mixed in with fox pups that were imported for fox hunting purposes. Most of the accounts of wild Virginia coyotes during the

Coyote Fast Facts

Diagnostic mark - Long bushy tail that droops when the animal runs.

Dimensions - Height: 2 feet, weight: to 50 pounds, length: 4 1/2 feet, tail: 16 inches with black tip.

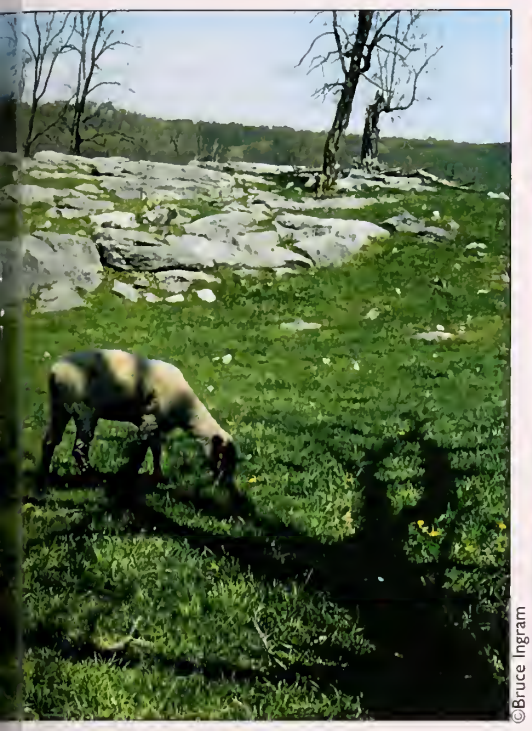
Color - Buff gray body, white underbelly, rusty legs, feet and ears.

Tail - Held horizontal as threat display.

Active - Day and night, mostly the latter, but especially at dawn and dusk.

Habitat - Thrives everywhere except deep forests.

Speed - Up to 40 mph.



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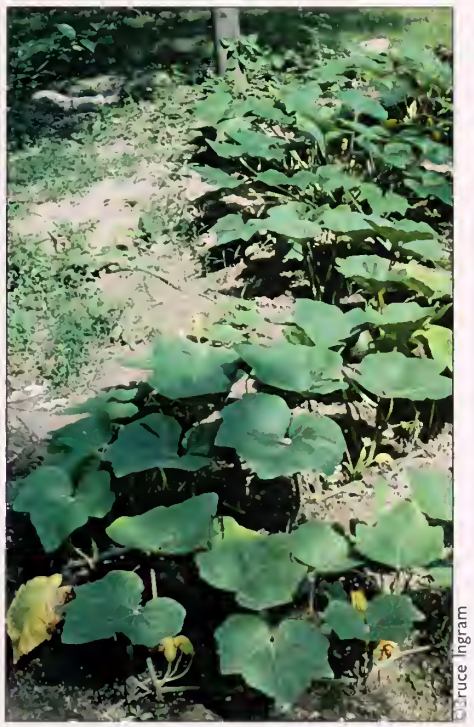

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Coyotes now thrive across the state. Rolling hill country, like this pastoral scene from Rappahannock County, is often favored by these animals because of their fondness for mice, chipmunks and groundhogs The backyard grower of fruits and vegetables will also have visits from coyotes, just like the rural landowner who raises sheep and cattle. Interestingly, coyotes relish a number of crops such as squash, zucchini and butternut squash, but especially favor watermelons.

Vocalizations

Huffing - Female's quiet way to call pups.

Bark - A threat mechanism.

Howl - A way to communicate with others of their kind.

Whine - Pair bonding.

Interesting Tidbits

Coyotes and dogs can interbreed, although they rarely do—contrary to the popular myth. The resultant coydog is less fertile than either parent.

Coyotes mark their territories with urine.

Canis latrans are closely related to gray and red wolves, domestic dogs and jackals.

Until after 1965, the coyote rarely occurred east of the Mississippi River.

Coyotes especially thrive where there is widespread timber harvesting and the resultant regeneration.

©Bill Lea

1960s and early 1970s were most likely the result of human transport.

"During this same time period, however, coyotes were expanding their natural range eastward. They moved across the South and up into the mountains of Southwest Virginia during the 1970s and soon established viable populations. Concurrently, coyotes were also expanding their northern range across Canada and down through the mountains of New York, Pennsylvania and Maryland. They became established in the northwest mountains of Virginia during the late 1970s."

Populations in the mountains gradually increased, continues Fies. Eventually, these animals moved eastward. Coyotes currently dwell in all Virginia counties, including the Delmarva Peninsula and one of the Barrier Islands. The biologist is very blunt about an important fact.

"It's important to note that the Department never stocked any coyotes in Virginia," he emphasizes. "There are many rumors suggesting that the Department stocked coyotes for a variety of reasons, but they are all hogwash."

Life History

Coyotes have been recorded as living as long as 15 years in the wild, and females can breed after their first year. They may have as few as one or two pups (with an average of six or seven) or as many as 12—depending on their population numbers, food availability and overall health among other factors. Basically, this means that if coyote numbers are low, the females will have more pups; if numbers are higher, they will produce fewer young.

And this amazing ability to, in effect, control their reproductive rates explains why coyotes have been impossible to eradicate once they have arrived in an area. Lindsay Thomas, editor of *Quality Whitetails*, which is a publication of the Quality Deer Management Association (QDMA), offers this insight.

"If you are going to attempt to control coyotes, you had better plan an intensive and sustained effort," says Thomas. "You would need to

hire professional trappers and have a year-round, never ending program."

Coyotes typically mate between February and April with the female giving birth some 60 to 63 days later. Both sexes help raise the young, although the male's primary role is to bring food to the den. At the age of nine to 14 days, the pups open their eyes, and they nurse for five to seven weeks. By the fall, the young typically hunt alone and wander in an attempt to establish territory.

Mississippi State University (MSU) and Dr. Bruce Leopold conducted a 10-year research project on coyotes and other predators. Among the findings were that young males may patrol a territory of 30 to 40 square miles and some have been found to relocate more than 100 miles from their birthing area. Females may range across five to eight square miles. This wanderlust helps explain how coyotes can quickly populate a county or state.

What Coyotes Eat

Coyotes are true omnivores, consuming everything from small mammals to fruit, berries and vegetables (they seem to have a fondness for gourd vegetables such as watermelons) to carrion. This creature is an especially lethal predator on rabbits, groundhogs, chipmunks, mice and squirrels and will even raid landfills, garbage cans and pet food dishes. And, ironically, although foxhunters released coyotes so as to have another animal to chase, these creatures are known to prey on foxes, especially the red species. As opportunists, coyotes will kill sheep and calves—or any other farm animal they can drag or run down. But to emphasize, mice, groundhogs, and chipmunks are among the most common animal foods of coyotes—not deer, turkeys or farm animals.

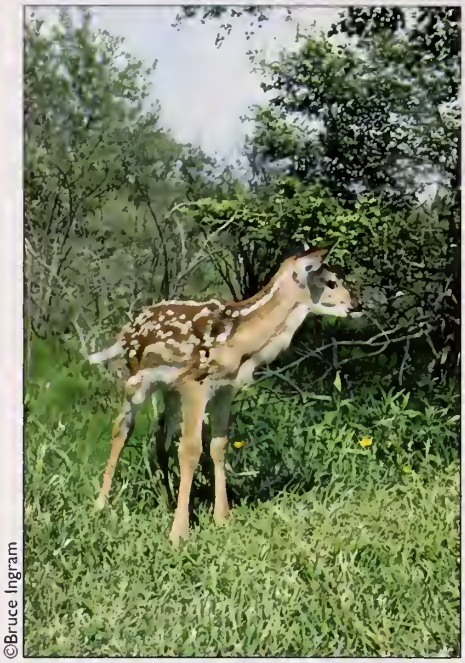
Effect on Deer

According to MSU research, two primary times exist when coyotes have been found to possess deer hair in their scat. One is during the hunting season when the coyotes feed heavily on gut piles or deer that were wounded or killed and not found. The other is during the fawning season. The best ways to prevent coyotes from eating a lot of fawns is to practice quality deer management and to have a lot of the type of habitat where does can give birth.

"Good fawn cover consists of tall grass and mixed forbs, and it needs to be scattered about so that coyotes can't concentrate on just one area," says Thomas. "These animals will figure out if an area just has one good spot for fawns to hide. And by keeping deer numbers in check and having a good buck to doe ratio, the result will be that the does all drop their fawns at the same time."

This means, continues Thomas, that with all the does in a certain area giving birth at the same time, that area would be "flooded" with fawns; so many, in fact, that the coyotes can not kill very many of them. When the does drop over a period of several months, predation is much higher because fewer fawns are produced at a time, and coyotes are able to concentrate on this food source over a longer period.

Rarely will coyotes run down an adult deer, although certain individuals can learn how to unite to do so. Fawns are not typically a target of coyotes once they are able to run with their mothers. It's a myth, concludes Thomas, that "coyotes are killing all the deer."



©Bruce Ingram

Coyotes will prey upon fawns, especially if a lack of good fawn hiding habitat exists.

Below: Trapping, like hunting, is a valuable wildlife management tool that is used to help control the population of furbearers, such as coyote and fox.

©Bruce Ingram

©Bruce Ingram

How to Hunt and Trap Them

Gary Sefton, district sales manager for Woods Wise Products, marvels at how popular coyote hunting has become.

"Coyote hunting is something you can do year round, which helps explain its appeal," says Sefton.

"Plus, many farmers will let people come onto their land to coyote hunt, even though they might not let anyone deer or turkey hunt there. In fact, a good way to gain initial access is to ask a farmer if you can hunt for coyotes."

Regarding calling tactics, Sefton recommends calls that can "reach out" and create the illusion that a prey animal is in great agony. An example of this is his company's Mini-3, which features the distress sounds of a jackrabbit, rodent, and cottontail.

Lewis Crawford, a Troutville trapper and hunter, offers these quick tips.

- ✓ Wear full camo, practice scent control, and play the wind—coyotes possess outstanding senses of sight, hearing and smell.
- ✓ Turkey season is a great time to hunt coyotes, as these animals will often respond to hen yelps and clucks.
- ✓ Set up on field edges, especially along fencerows. Look for "coyote crossings," that is places where this predator leaves hair behind when it slinks beneath a fence. Crossings are also excellent places to practice trapping.
- ✓ For trapping, snares work better than traps because the former can be set up without the hunter leaving as much scent behind.

Why Bounties Don't Work

At the request of farmers, ranchers and hunters among others, several Virginia counties have instituted bounties. Although well meaning, these efforts, at best, are irrelevant or doomed to failure. After all, how can one deal with a species that can effectively regulate how many offspring it produces, and that will eat anything while hunting or scavenging at any time of the day.

In fact, bounties can, in certain circumstances, even lead to an increase in coyote numbers and in predation of livestock. The killing of the dominant male, for example, can result in an influx of young males—all hoping to become the alpha animal. VDGIF wildlife biologist John Rohm, who has extensively studied coyotes, emphasizes that bounties haven't worked out West and will not likely work here. One reason bounties didn't work in the West, continues Rohm, is because the coyotes responded to population reduction by producing bigger litters.

"Bounties are ineffective," adds Mike Fies. "They have a 150-year-plus record of total failure. I'm aware of 15 different Virginia counties that currently offer a bounty, ranging from $25 to $100 per animal."

The biologist informs that most coyotes turned in for a bounty would have died anyway, as they are opportunistically shot by hunters after deer. A large percentage of the population would have to be killed before numbers are significantly impacted. Population models suggest that more than 60 percent of the population must be killed or it can recover in a single year.

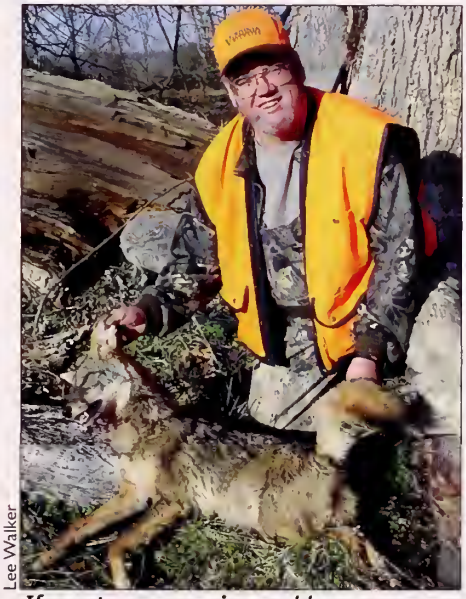
"Bounties usually result in killing one percent or less of the population," says Fies. "Coyotes are very adaptable and can increase their reproductive output when populations are reduced. Losses are supplemented by an increase in average litter size, an increased percentage of adult females breeding, more juvenile breeding, and increased pup survival. When populations are high, fewer young are produced.

"Other reasons that bounties are not a good idea include rampant fraud and more domestic dogs being accidentally shot/trapped. Most of the coyotes killed with a bounty system are not those that are causing problems.

"A better approach is to target the areas where problems are occurring. USDA Wildlife Services effectively assists farmers and livestock producers who are experiencing problems. This surgical approach is much more effective than a 'shotgun' approach."

Yes, Virginia, the coyote is here to stay. We'll just have to get used to his presence, just as people in the West have been forced to do. □

Bruce Ingram is the author of the following books: The James River Guide, The New River Guide *and* The Shenandoah/Rappahannock Rivers Guide.



Lee Walker

©Bruce Ingram

If coyotes are causing problems on your land, it may be time to start hunting or trapping them. For hunters coyotes offer a unique challenge and for trappers the fur can be a good source of income.

Information Sources

Quality Deer Management Association: www.qdma.com

Mississippi State University: www.cfr.msstate.edu/predatorprojecthome.html.

Trapping: www.virginiatrappers.org and www.nationaltrappers.com

The Birthplace of

©Dwight Dyke

Visitors to the Jamestown Settlement Museum can see replicas of the "Susan Constant," "Godspeed" and "Discovery," which carried the first settlers to the New World.

Celebrate the 400th anniversary of America this year with a visit to Jamestown.

by Jack Trammell

The founding of Jamestown in 1607 remains one of the great turning points in world history. On a small, low-lying peninsula in the lower James River, 105 Englishmen and boys landed and had no idea they were changing the course of world events. They were more concerned with survival—45 or so of their comrades had already perished during the long Atlantic voyage. The tenuous foothold they established, though, was the seed of great things to come.

The settlement did not begin with any great promises of success. The Spanish had already attempted settling in the Chesapeake and found it hot, disease-ridden and the aborigines dangerous. Their settlement perished. The British had made previous attempts, as well, including what would become known as the "Lost Colony" at Roanoke Island. When Captain Christopher Newport, John Smith and the rest of the 1607 adventurers set foot on the peninsula, they did not dwell on past failures and were confident (perhaps foolishly) that this attempt was different.

Jamestown Timeline

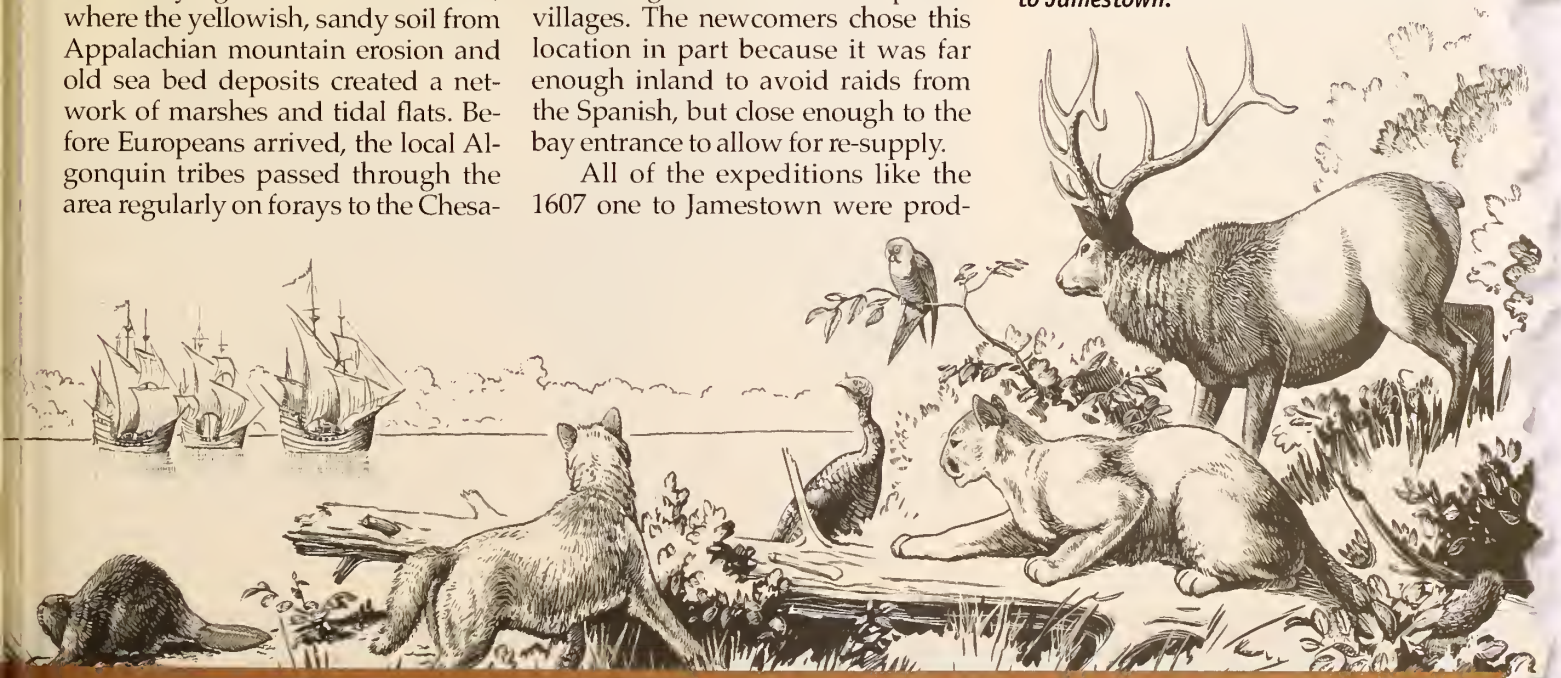
1606	King James I charters the London Company
	Susan Constant, Godspeed and the *Discovery* leave London
1607	105 men and boys with Captain Christopher Newport land on Jamestown Peninsula
1608	First European women join the settlement

America

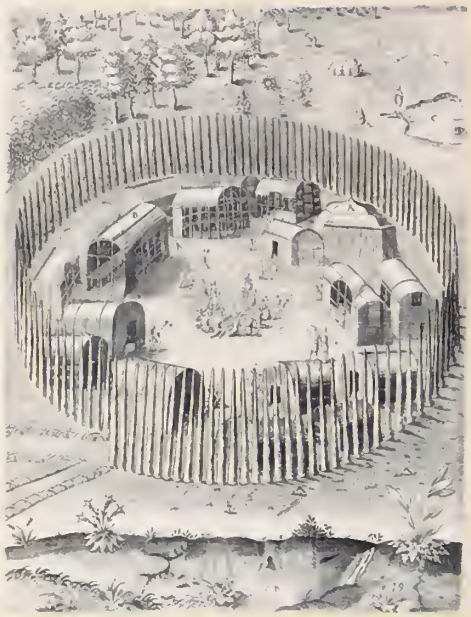
The location they chose was a flat, low-lying area below the fall line, where the yellowish, sandy soil from Appalachian mountain erosion and old sea bed deposits created a network of marshes and tidal flats. Before Europeans arrived, the local Algonquin tribes passed through the area regularly on forays to the Chesapeake Bay, but generally chose higher and drier ground for their camps and villages. The newcomers chose this location in part because it was far enough inland to avoid raids from the Spanish, but close enough to the bay entrance to allow for re-supply.

All of the expeditions like the 1607 one to Jamestown were products of an era when European monarchs increasingly were consumed with exploiting the presumed wealth of the New World, as the Spanish had done for over 100 years. Spanish gold and silver fleets sailed regularly back to Europe where the money flowed through the royal coffers like water, financing wars and additional exploration, creating the aura of what seemed like an endless supply of money. There was, too, a strong notion of *translatio imperii*, or the belief that Europeans (and specifically the English) were the imperial heirs of the Roman Empire, and were des-

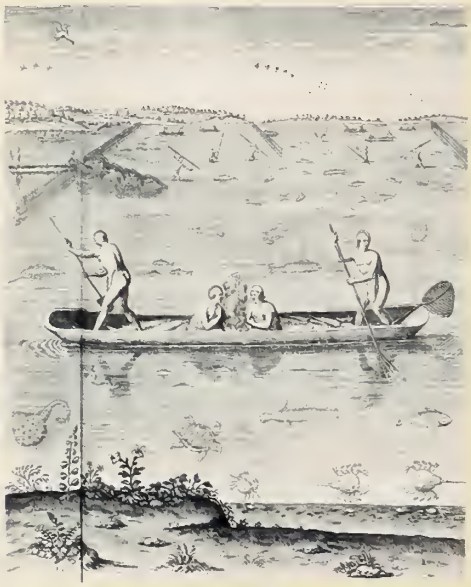
Left: John Smith's "Virginia" was originally published separately in London in 1612 and then in the 1612 Oxford publication of John Smith's "A Map of Virginia." It remained the most influential map of Virginia until the last quarter of the 17th century and many of the place names used by Smith remain in use. Courtesy of www.VirturalJamestown.org Below: Famed wildlife artist Ned Smith, 1919-1985, illustrated some of the animals that the first colonists might have seen as they traveled up the James River to Jamestown.



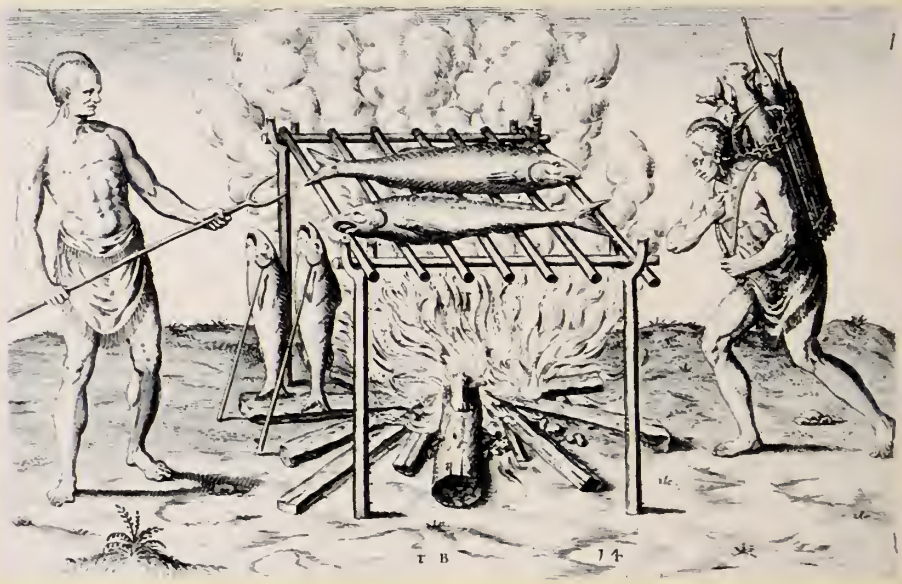
1609	John Smith returns to England
1609-1610	Starving time; nearly half of the settlers perish
1612	First noteworthy tobacco exports
1613	Pocahontas and John Rolfe married



Village Of Pomeiooc–A bird's-eye view of an Indian village. Engraving by De Bry (printed 1590) based on watercolor by John White. Courtesy of the John Carter Brown Library at Brown University. www.VirturalJamestown.org



Indian Fishing–An engraving by De Bry (printed 1590) based on watercolor by White. Courtesy of the John Carter Brown Library at Brown University.



Cooking Fish–An engraving by De Bry (printed 1590) based on watercolor by John White. Courtesy of the John Carter Brown Library at Brown University.

tined to spread their civilizing influence from one corner of the globe to the other. Entrepreneurs also hoped to find a short cut to the South Seas trade routes.

In reality, the Jamestown settlers quickly found their hands full with merely surviving. The peninsula proved to be almost uninhabitable, even by the crude standards of the time. There was no fresh water, swarms of mosquitoes bred in the swamps, and the natives (various Algonquian tribes) were aloof and suspicious. The local game and fauna were quickly exhausted. Scholars believe that the region was also suffering from the worst drought in hundreds of years. After Captain Newport left to return to England, the appointed leaders feuded and machinated when they should have been planting corn and storing food. John Smith—a soldier, adventurer and opportunist—increasingly took charge, and applied drastic measures to keep the settlement from dissolving. One body uncovered from the time period shows evidence of violence from firearms—an apparent victim at the hands of his own comrades, and a clear indication of the troubled environment.

"He who does not work, will not eat," Smith declared, quoting St. Paul's epistle.

Smith, however, was captured by a native hunting party, and taken to the regional Algonquin chieftain, Powhatan. Chief Powhatan actually ruled over more than two dozen subject tribes, controlling an area from the fall line to the ocean shores between Maryland and North Carolina. Contrary to some accounts, Powhatan was very deliberate and thoughtful in his dealings with the English settlers. Some historians believe that he planned to assimilate the newcomers within his own empire, or to use them against rival Monacans.

Powhatan was intrigued by the brash, young John Smith. It was during this captivity that Smith's famous encounter with Powhatan's daughter, Pocahontas, purportedly took place. According to Smith's account, she placed her head over his when Powhatan's warriors were preparing

Jamestown Timeline

1619	First Africans arrive; General Assembly meets, first elected representative government in the New World
1622	Great Massacre
1624	Amid accusations of mismanagement, London Company dissolved and Virginia declared a crown colony

Pocahontas–An oil portrait by William Ludwell Sheppard, 1891. Courtesy of www.VirturalJamestown.org

to bludgeon him to death and begged for his life to be spared. While it is not clear exactly what happened during his month-long stay with Powhatan, it is clear that his survival skills served him well. He was the only one of his party to return to Jamestown alive, apparently no worse for the wear.

In his absence, organization had further deteriorated at the settlement. Internal fighting and laziness prevailed amongst many of the men throughout the first years (traditionally blamed on having too many "gentlemen" and not enough craftsman or farmers), and Smith met with constant frustration. In fact, on his return, he found men bowling and engaging in other leisure while starvation was imminent. With starvation near, Smith and a few other men set off on an exploration of the entire Chesapeake Bay region to secure food. He produced the first accurate map of the area, made contact with other tribes, and eventually returned with much-needed supplies. Still, the situation at Jamestown proper remained almost untenable.

Smith resorted to further draconian measures, enforcing many rules that had been lax, and most of the other men supported him, later confirming his leadership by electing him president of the group council. Through his diligence, matters finally reached some degree of stability. Captain Christopher Newport returned, as well, with more supplies and settlers.

Disaster continually stalked the colony, however. In late 1609, Smith was seriously wounded by an accidental powder discharge, and had to return to England. He would never set foot in Virginia again. The settlement sorely missed his tough leadership, particularly during the winter of 1609 to 1610 known as the "starving time," when almost half the population perished.

©Dwight Dyke

Statue of Captain John Smith located at the Jamestown National Historic Site. Captain Smith was a soldier, explorer and author, and was also one of the more notable of the first settlers who helped found Jamestown Colony in 1607.

The next summer, those few who remained had had enough. They buried the cannon and armor, packed their ships and left. Supplies and reinforcements under the command of Lord De La Warr providentially met them near the mouth of the river the very next day, and ordered them to return. The immediate crisis was averted. The early years of Jamestown, however, were not glamorous—starvation, disease, weather, battles with natives, homicide and even cannibalism constitute much of the history.

"It was definitely a rough place," noted Jamestown archeologist William Kelso confirms. "Because of the conditions faced at Jamestown, the British became American."

Kelso is presently heading an extensive archeological examination of the first Jamestown settlement. He has uncovered the original triangular fort, James Fort, as well as countless artifacts from the very first years of the settlement.

"We found the foundations of huge buildings and that was a total surprise."

Other historians are more cynical in their appraisal of the early years. "They seem to have made every possible mistake," wrote Edmund Morgan, "and some that seem almost impossible." In a region teeming with wildlife, fish and tillable soil, they resorted to begging from the natives and cannibalism. A large trash pit recently excavated revealed numerous deer bones and large fish scales from sturgeon, but in many cases, these remains represent the good will of the Indians, or the insistent work of survival by leaders like Smith.

None-the-less, part of what makes Jamestown unique is that it did survive. Many other settlements had been planted and soon perished. In 1603, for example, Captain Bartholomew Gilbert landed in the

1639	Famous church tower completed
1670	Jamestown burned to the ground during Bacon's Rebellion
1698	Virginia capital moves to Williamsburg
1750	Jamestown in decline; land used for cultivation
1775-1783	American military post established; British prisoners exchanged

©Dwight Dyke

In 1607, the English arrived at Jamestown and built James Fort in a few weeks. Today, visitors can visit both Jamestown Settlement, a living history museum operated by the state of Virginia, and Historic Jamestowne, site of the original fort, operated by APVA Preservation Virginia and the National Park Service.

Chesapeake Bay region, and his entire landing party was killed by Indians. Jamestown was the sole English colony surviving in America until Plymouth in 1620.

In 1613, survival was further ensured when John Rolfe exported a significant tobacco crop to England. While not as attractive as gold, or as useful as wood and other raw materials, tobacco quickly shifted the economic fortunes of the colony. That same year, Rolfe married Pocahontas in a symbolic merging of the Old and New Worlds. Gradually, settlers learned from the natives how to survive in the new environment: harvesting wild plums, tubers, nuts and wild rice, in addition to hunting deer, turkey, ducks and fish. They also grew more corn.

After the Virginia colony grew, and survival was no longer uncertain, Jamestown remained central to Virginia political and cultural life, both as the administrative capital, and as a metaphor for the New World. Larger buildings were constructed, including a statehouse, a brick church in 1639, and larger private homes. In 1676, however, Jamestown was burned to the ground when it became a chess piece in the struggle between Governor Sir William Berkeley and a young "troublemaker and schemer" named Nathaniel Bacon, Jr. At the height of Bacon's power, he forced the governor to flee to the Eastern Shore, and made a "Declaration to the People" promising to end the reign of terror on the frontier, where natives were engaged in a constant struggle with settlers over land and resources. When he could not ultimately overcome the loyal forces to the governor, Bacon put the settlement to the torch. He died of the bloody flux shortly thereafter, effectively ending what was termed Bacon's Rebellion.

Jamestown was rebuilt. The new statehouse was even larger than before, the foundation of which can be seen on the current park grounds. By this time, the center of Virginia life was shifting inexorably westward. When the newer statehouse burned down in 1698, political and economic forces had already been at work to move the capitol to nearby Williamsburg. In 1699, the move became official, and Jamestown changed into a sleepy riverfront hamlet. By the 1750s, the entire island was owned by two families, and was largely turned into open farmland. Many of the older structures fell into disuse and disappeared.

There were always visitors; the curious, and the occasional souvenir seeker. During the American Revolution, American soldiers were stationed on the island, and prisoner exchanges with the British were conducted there. An 1807 bicentennial celebration briefly interrupted the uneventful routine, but otherwise the atmosphere on the island remained quiet and without incident for many years. Later in this period, the ownership of the island was consolidated into one family (David Bullock).

In 1857, the solitude was broken by the 250th anniversary celebration, which featured thousands of visitors, 16 decorated steamships offshore, and a record two and one half hour speech by former president John Tyler. Some of the activities had to be moved east on the island to avoid damaging Major William Allen's (the island's current owner) cornfields.

When hostilities broke out between the North and South in 1861, Allen moved into a large plantation

Jamestown Timeline

1807	Bicentennial activities
1861	Jamestown occupied and fortified by Confederate troops
1893	22.5 acres, including church tower, donated to the Association for the Preservation of Virginia Antiquities

home on the island, the Ambler House, and commanded Confederate artillery. Confederate authorities, including Allen, saw Jamestown Island as a potential choke point on the James River where Union vessels might be checked by heavy artillery fire. Several hundred Confederate soldiers (more or less at any given time) worked on entrenchments, artillery revetments, and emplacements until Union General George B. McClellan forced them to evacuate during the Peninsula Campaign in 1862. Union forces left shortly thereafter, as well, and the island temporarily became a refuge for runaway slaves and other itinerants. A series of brutal murders occurred during this period, and the Ambler plantation home was burned down.

After the war, Jamestown again reverted to quiet farmland. From the accounts of Civil War soldiers and others, though, it is apparent that the physical environment continued to change. Back River on the western end of the island cut a channel completely through the peninsula, turning Jamestown into a true island. The James River regularly wore away the southern shore of the island, submerging part of the original triangle fort site. Confederate soldiers dug large earthworks (uncovering armor and other artifacts), and left their own mounds of dirt to compete with ruins from earlier buildings and works.

In 1893, the then current owners of Jamestown, Mr. and Mrs. Edward Barney, donated 22½ acres of the original site—including the historic church tower—to the Association for the Preservation of Virginia Antiquities (APVA). This was the beginning of a modern Jamestown revival. In 1934, the remainder of the island became part of the Colonial National Monument, now known as the Colonial National Historical Park, which is administered by the National Park System.

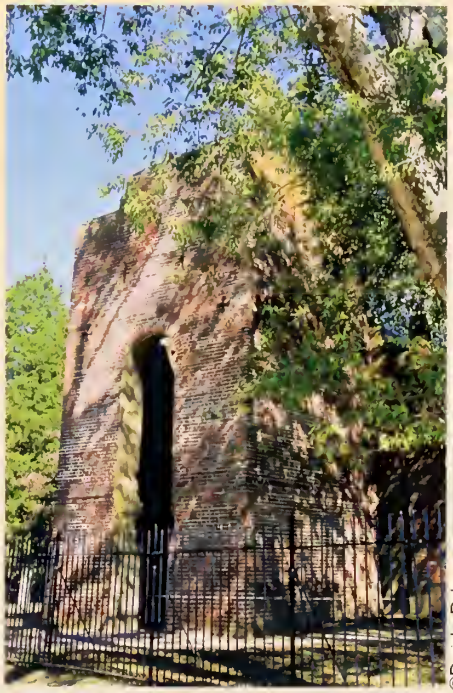
In 1992 and 1993 a prominent archeologist, Dr. William M. Kelso, was hired to run the Jamestown Rediscovery Project. His team discovered the missing triangular fort that many thought had washed away in the James River, and in the process uncovered hundreds of artifacts from the time of the original settlement. Kelso's team created a more complete picture than ever before of what the first years were like.

"It's a continuing process," he said recently. "It's like peeling an onion—you just keep going towards the center. It's going to become clearer and clearer."

It's also clear that 2007 will be the largest celebration yet on the island. As America has continued to grow, so too, has the appreciation of the humble beginnings from which it bloomed. Plans are underway for the quatracentennial that will include record crowds of visitors, guest dignitaries and celebrities, and a wide variety of continuous activities. A Hollywood film about Jamestown, "The New World," was released in 2006.

For some visitors, however, seeing the island on a quiet day is equally rewarding. On those days, visitors can close their eyes and imagine the island as it was more than 400 years ago—a warm, marshy flatland blown by the crosswinds along the James River, inhabited by large pine trees and whitetail deer. Would anyone in 1607 have guessed what would spring forth from such a small, unpromising premonitory?

d Del La Warr was the first governor of Virgia. When he arrived at Jamestown in 1610, found the settlers in such poor condition t they requested to return to England. w.VirturalJamestown.org



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Old Church Tower, Colonial National Historic Park Jamestown, Virginia.
For more information about Jamestown's 400th Celebration or its history visit: www.americas400thanniversary.org or www.historyisfun.org.

Jack Trammell works at Randolph-Macon College and writes about Virginia history and the Civil War. His recent books include a Civil War mystery, entitled "Gray." Special thanks go to Dr. James Scanlon, Virginia historian and writer, for sharing his knowledge about Jamestown.

900 Sea wall constructed
934 National Park Service acquires remaining property on Jamestown
992-1993 Jamestown Research Project begins
007 Quatracentennial celebration

GREBES AND LOONS:

story and illustrations
by Spike Knuth

Of the three grebes and two loon species found in Virginia only one is a year-round resident. Two grebes and two loons visit here in fall and winter only. During winter they are "dressed" in their non-breeding or winter plumage, which is considerably different than their breeding plumage.

Grebes and loons are water birds placed by taxonomists in the biological order of *pygobodes*, which is from two Greek words meaning "rump" and "foot." The name refers to the position of the bird's legs in relation to the rest of their bodies.

Because of their legs being set far back near their tails, they must sit or stand in an almost perpendicular, penguin-like position and have great difficulty in walking on land. In most cases they must push themselves on their breasts in order to move any distance.

On the other hand, they are superior swimmers and divers and are excellent underwater swimmers where they seek food or escape danger. They propel themselves with either webbed feet (loons) or flattened lobed toes (grebes), and in some cases will use their wings and "fly" through the water.

Their wings are short and they have a stub of a tail, which makes them appear tailless. Plumage is dense, compact, smooth and waterproof. Their bodies are encased in fat as insulation against the cold water. Preferring to dive rather than fly to escape danger, they can merely sink out of sight with only their eyes and bill above water.

Despite their small wings, they are fast, strong flyers, usually flying in a straight and direct line. Their feet hang out the back and aid as rudders in place of their small tail. In flight their heads are held a little below body level giving

The pied-billed (left), horned (right) and red-necked are the most common species of grebes found in Virginia. Grebes are considered diving birds that feed on small minnows, aquatic bugs and plants. They are seldom seen in flight.

Be Wild! Live Wild!

Winter Visitors

them a hunchbacked appearance. Bill sizes vary in loons and grebes but both are able to open wide to receive a variety of foods.

Grebes prefer inland bodies of freshwater for the most part but some will go to saltwater while loons are more saltwater oriented but may occasionally be found on larger freshwater lakes. Both grebes and loons tend to be solitary except maybe during migration. Both feed mainly on small fish, but will also feed on salamanders, frogs, aquatic insects, leeches, crustaceans and aquatic vegetation. One oddity is that grebes always have a considerable mass of feathers in their stomachs. No one is sure why but it is thought to be a digestive aid.

The most common of our grebes is the pied-billed grebe *(Podilymbus podiceps)*. This bird measures 12 to 15 inches and is commonly seen on small ponds and lakes. It swims buoyantly, often appearing as just a lone, small, dark "duck" to most people, with a short, grayish, thick bill. This is the only grebe that nests in Virginia.

One of the local names for this bird around Back Bay is "sinkin' peter;" referring to the fact that it can sink out of sight and runs on the water to become airborne. It is also known as the witch duck or helldiver, a name all grebes carry. In winter the pied-billed grebe is basically dark brown above and light brown and buffy white below, with a white throat and chin. The dark stripe on its bill and black throat patch are good field marks in

Grow Wild!

During the colder months, when inland ponds and lakes freeze, grebes and loons will look for open water and can often be seen floating around the islands of the Chesapeake Bay Bridge Tunnel.

spring and summer. Look for them on small freshwater ponds, lakes, marshes and brackish sloughs.

The horned grebe *(Podiceps auritus)* is a common winter resident, arriving in late October, especially along the coast in salt or brackish water, but occasionally on large inland lakes and tidal rivers. It too measures around 12 to 15 inches. It has a smaller more pointed bill and in winter is dark gray above and satiny white below. Horned grebes ride buoyantly on the water with head high, showing a slight crest-like top. Its flight is direct and loon-like and they show white wing patches. Horned grebes will stay with us until sometime in April when its plumage begins to take on its spring colors. Look for them on small lakes, brackish marshes, tidal rivers and protected bays.

Not as common, the red-necked grebe *(Podiceps grisegena)* is 17 to 22 inches long. Its winter colors are basically grayish brown above including its crown and neck, with grayish to white underparts. It has grayish cheeks with a vertical white mark behind them, and maybe a tinge of red-

A juvenile red-throated loon (left) and a common loon (right) are also diving birds that migrate through Virginia. They prefer larger bodies of water along the piedmont and coastal areas. Both are larger than grebes and can be identified by their beautiful plumage and distinctive head and bill. The mournful and eerie call of the common loon is unmistakable and is often associated with true wilderness areas.

dish brown on the neck. The bill is straight, long and sharp; yellow at its base. In flight it shows white wing patches. They will stay as far north as there is open water and when they do migrate to Virginia they gravitate to salt water. They show up in early November and leave in March and April.

The common loon *(Gavia immer)* arrives to Virginia in late-October. This is the bird whose mournful call is used in scary or adventure movies and commercials. Come winter however it is rare to hear it, except maybe in spring when they are preparing to migrate north. Its non-breeding or winter plumage changes from its distinct black with white spotted back and black head and face pattern to a dark gray above and white below. However some remnants of its throat patch remain in some cases. Common loons measure 28 to 36 inches and weigh 5 to 9 pounds.

In flight the common loon flies with feet out behind and head and bill held a bit below body level. It is sometimes mistaken for a goose by inexperienced hunters. It lands with a big sliding splash, and needs considerable "runway" to take off. Many a loon has allowed itself to get stuck on a small pond in winter only to have it freeze up and make it impossible to become airborne.

Common loons are found in saltwater, but also on large inland lakes and tidal rivers, where they feed on small fish of all kinds. They can dive and remain submerged for up to 40 seconds or more and have been caught in fish nets almost 200 feet deep.

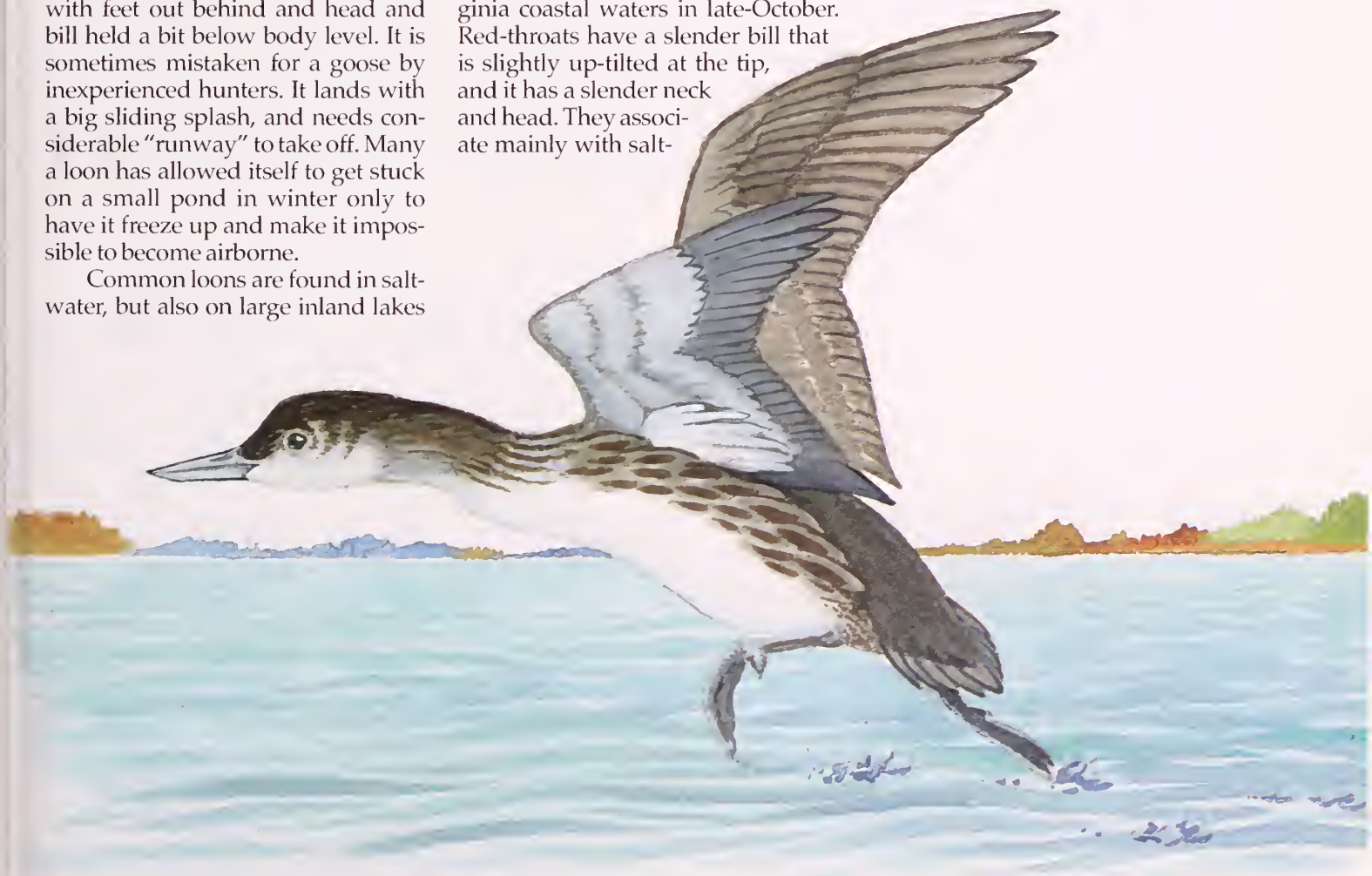
Common loons are solitary and usually migrate singly or in pairs. They begin moving back north in March, with stragglers as late as April.

Red-throated loons *(Gavia stellata)* also known as red-throated diver, sprat loon or little loon are considerably smaller than the common loon. They measure 21 to 27 inches and in winter they loose their grayish head and red throat and become grayish-brown above, with a white face, white underparts and distinctive white spotting on their backs (like stars, thus the name "stellata"). Sprightlier than other loons and grebes, red-throats are able to spring into flight from a standstill.

They begin showing up in Virginia coastal waters in late-October. Red-throats have a slender bill that is slightly up-tilted at the tip, and it has a slender neck and head. They associate mainly with saltwater, usually feeding just off shore in the breakers, and are especially fond of small saltwater fishes. They too tend to be solitary and when they migrate they are said to migrate at high altitudes. They will leave us in March and April. □

For more than 40 years Spike Kunth has been an avid naturalist and wildlife artist. Through his writings and illustrations Spike continues to share with others his love and fascination for our flora and fauna.

Be Wild! Live Wild! Grow Wild! is a new monthly feature that will highlight the Virginia Wildlife Action Plan, which is designed to unite natural resource agencies, sportsmen and women, conservationists and citizens in common vision for the conservation of the Commonwealth's wildlife and habitats in which they live. To learn more or to become involved with this new exciting program visit: bewildvirginia.org.



2007 Outdoor Calendar of Events

January 6: Hunting seasons close for bear, deer and turkey.

April 14–May 5 and May 7–May 19: Spring Gobbler season. □

Letters From Afield

John Sweet, from Mustoe, Va. writes to offer additional information about hummingbird feeders, that appeared in the September 2006, *Photo Tips* column, which suggested that September is the month to bring in your nectar feeders to encourage hummingbirds to migrate south.

Rather than remove your feeders based on a certain time of the year Mr. Sweet suggests that, "Hummingbirds will migrate when the weather conditions are right and they are ready to go. It is very important to leave the feeders up as long as any birds are present. The last weeks before migration is a critical period for the birds to take on fuel and prepare for their long flight.

Withdrawing the food source they have become used to will not force them to leave sooner, it will just force them to leave less well prepared."

Justin Tolley

In fact, many sources on attracting, watching, feeding and studying North American hummingbirds, such as *www.hummingbirds.net*, suggest that no harm would be done to the birds if the feeders were left out, depending on your geographical location, between the months of September and December. The thing to remember is that hummingbirds will leave when they are properly fed and ready to go.

Sweet adds "A good indicator of when to put the feeders out in the spring is when the japonica blooms, which is mid-April in the western part of the state and earlier in the lowlands. This is a common shrub with red flowers that attracts hummers. Cherry blossom time is also a good reminder." □

Pier for the Handicap

On October 15th at the Pro-Am Bass Masters event on John Kerr Reservoir, the Virginia Mid-Atlantic Chapter of the Paralyzed Veterans of America (PVA) held its annual fundraiser for the Pier for the Handicapped program with the Department of Game and Inland Fisheries. By raffling off a donated Mercury outboard motor, the PVA raised $3,300 for the Department.

The Department's long term partnership with PVA has resulted in many fine facilities for disabled anglers to enjoy, such as the piers at Lake Orange, Lake Brittle, North Bend Park, Leesylvania State Park and Lake Chesdin.

The Department currently owns, operates or cooperates on 46 accessible fishing facilities across the Commonwealth. Our goal is to provide fishing opportunities to all Virginia anglers.

If you get a chance, send thanks to the PVA at Vapva@aol.com. □

No Trespassing!

by Jennifer Worrell

Trespassing to hunt is never a good idea, especially when two Game Wardens are watching. Region Four officers Carl Martin and Amy Atkison were patrolling an area where they had received a great number of trespassing complaints during spring gobbler season. As they walked through the woods, the wardens came upon a turkey hunter. The officers hid and kept the man under surveillance. They soon saw a second hunter, and they listened to him use his turkey call a few times.

The wardens then watched the men leave their spots and walk right under a posted sign. The hunters crossed the property line and trekked 80 yards onto the posted land. Martin and Atkison realized they had their trespassers! Once the officers stopped the violators, they realized that trespassing was only one of their offenses. The first hunter they saw toting a gun turned out to be a convicted felon. The other perpetrator was hunting without a license. It just goes to show that one never knows when a game warden or two will join their hunting trip! □

Report Wildlife Violations
1-800-237-5712

by Beth Hester

Gunning the Eastern Uplands–
John D. Taylor
Illustrations by Dennis Burkhart
2004, Bonasa Press
1-717-684-4215
www.bonasapress.com

"No longer can a gunner walk out the back door and be in–and hunt–bird country. We must drive further each passing year. Posted signs, absentee landlords, insurance concerns, gunning club leases and other troubles have closed much of what was once open gunning land".

- John D. Taylor

Many of *Virginia Wildlife* readers, especially those with a fondness for the upland bird, are familiar with the 1946 classic *Eastern Upland Shooting* by the eminent Dr. Charles Norris. But 1946 was a long time ago, and upland bird hunting has drastically changed along with the nature of land use and shrinking habitat. Pennsylvania author and upland bird hunter John D. Taylor revisits the topic, and his volume: *Gunning the Eastern Uplands* is an in-depth treatment of the subject and is part history, part pilgrimage, and a homage to the hunting dog, in particular the DeCoverly Kennels English setters.

The book begins with a detailed, but riveting exploration of what is considered to be eastern upland habitat from Maine to Georgia, which includes Virginia's piedmont region and Appalachian mountain area.

Taylor then covers the history of the upland bird dog, the search for the ultimate shotgun, and reflects on the characteristics and habitats of quail, grouse, dove, pheasant, turkey and woodcock. Taylor writes with an honesty and self-deprecating sense of humor that is very refreshing. Taylor also includes a fond biography of Dr. Charles Norris, and makes a pilgrimage of sorts to the places Norris lived, and the areas he hunted.

You are so taken in by Taylor's prose style, that you don't realize just how much scholarly detail he has packed into each chapter until you've closed the covers for the evening. *Gunning the Eastern Uplands* is truly a modern outdoor classic.

Virginia Nongame Wildlife Program

Celebrate Virginia's Nongame Wildlife Program by helping to support essential research and management of Virginia's native birds, fish and other nongame animals.

If you are due a tax refund from the Commonwealth of Virginia, you can contribute to the Virginia Nongame Wildlife Program by simply marking the appropriate place on this year's tax checkoff, on the Virginia State Income Tax Form.

If you would like to make a cash donation directly to the Virginia Nongame Wildlife Program using a VISA or MasterCard, you can visit the Department's Web site or mail a check made out to: Virginia Nongame Program and mail it to Virginia Nongame Program, 4010 W. Broad St., Richmond, VA 23230-1104.

Remember, that this is the year that you can make a difference by helping to support the management of Virginia's wildlife.

Nongame Tax Checkoff Fund

Answers to the December 2006 "Byrd Nest" Crossword Puzzle

BYRD NEST CROSSWORD

A	F	T				B	R	O	W	S	E		B	E	A	L
	E			C			O	A	H	U			A			O
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Special Trout Guide

To offer greater access to anglers interested in trout fishing information in Virginia, the Department now publishes the Trout Guide in the "Freshwater Fishing in Virginia" regulation booklet. Please visit one of the Department's many hunting and fishing licenses agents or call (804) 367-9369 for a copy.

Best duck call I ever heard and he uses only his mouth

RECIPES

by Joan Cone

Trout Are a Cook's Delight

All varieties of trout provide wonderful eating. Their cold water habitat makes the meat firm and easy to prepare. Best of all, Virginia offers year-round opportunities to pursue rainbows, browns or brookies in a wide range of lakes and streams. As Izaak Walton wrote centuries ago, "First catch your trout."

Menu

Glazed Brie
Trout Amandine
Roasted Potatoes
Fruited Carrot Salad
Chocolate-Raspberry Triangles

Glazed Brie

8 ounces Brie cheese (wedge or round)
1/4 cup butter or margarine
1 cup coarsely chopped walnuts
1/4 teaspoon ground cinnamon (optional)
1/8 teaspoon ground nutmeg (optional)
2 tablespoons honey
2 large apples, cored and thinly sliced

In a 10-inch nonstick skillet, melt butter and stir in walnuts, cinnamon and nutmeg. Stir in honey and cook, stirring constantly until bubbling. Immediately pour over cheese. Serve hot over apples or with crackers. Makes 8 servings.

Trout Amandine

1/2 cup sliced (flaked) almonds
4 trout fillets, 5-7 ounces each with skin intact
1/2 cup flour
1 tablespoon sweet paprika
Salt and freshly ground pepper to taste
2 tablespoons unsalted butter
2 tablespoons olive oil
1 tablespoon fresh lemon juice
1 teaspoon Worcestershire sauce
Chopped fresh parsley for garnish

Preheat oven to 400° F. Bake almonds until golden brown, about 5 minutes. Combine flour, paprika, salt and pepper. Coat the fillets in the seasoned flour. Heat pan over medium-high heat and add 1 tablespoon of butter and 1 tablespoon oil. Place fillets in pan, skin side up. Sauté until they are golden on the bottom, about 1 minute. Use a wide spatula and turn the fillets. Cook until golden on the other side, about 2 minutes.

Place fillets on warm platter. Over medium heat, melt remaining 1 tablespoon butter with remaining 1 tablespoon oil. Add the almonds and sauté for 30 seconds and then add the lemon juice and Worcestershire. Swirl the sauce around in the pan and pour over the trout fillets. Garnish with parsley and serve. Makes 4 servings.

Roasted Potatoes

2 tablespoons olive oil
4 bay leaves
2 pounds small red-skinned potatoes

Preheat oven to 450° F. Combine oil and bay leaves in small skillet. Cook over medium heat just until warm. Remove from heat and let stand 15 minutes so that bay leaves flavor oil. Toss potatoes with bay leaf oil in large roasting pan. Sprinkle with salt and pepper. Roast in oven, about 45 minutes, until potatoes are brown and tender, stirring occasionally. Discard bay leaves and transfer potatoes to bowl and serve. Makes 6 servings.

Fruited Carrot Salad

2 cans (11 ounces each) mandarin oranges, drained
2 medium carrots, grated
1 medium apple, chopped
1/4 cup thinly sliced celery
1/4 cup golden raisins
3 tablespoons lemon yogurt

In a bowl, combine oranges, carrots, apple, celery and raisins. Add yogurt and stir to coat. Cover and refrigerate until chilled. Makes 4 servings.

Chocolate-Raspberry Triangles

1 1/2 cups flour
3/4 cup sugar
3/4 cup butter or margarine, softened
1 box (10 ounces) frozen raspberries in syrup, thawed and undrained
1/4 cup orange juice
1 tablespoon cornstarch
3/4 cup miniature semisweet chocolate chips

Preheat oven to 350° F. In medium bowl, mix flour, sugar and butter with spoon. In bottom of ungreased 13x9-inch pan, press dough evenly. Bake 15 minutes. In a 1-quart saucepan, mix raspberries, orange juice and cornstarch. Heat to boiling, stirring constantly. Boil and stir 1 minute. Cool 10 minutes. Sprinkle chocolate chips over crust. Carefully spread raspberry mixture over chocolate chips. Bake about 20 minutes or until raspberry mixture is set. Refrigerate about 1 hour or until chocolate is firm. For triangles, cut into 4 rows by 3 rows, then cut each square into 4 triangles. Makes 4 dozen triangles. □

Photo Tips

by Lynda Richardson

A Cold Weather Challenge

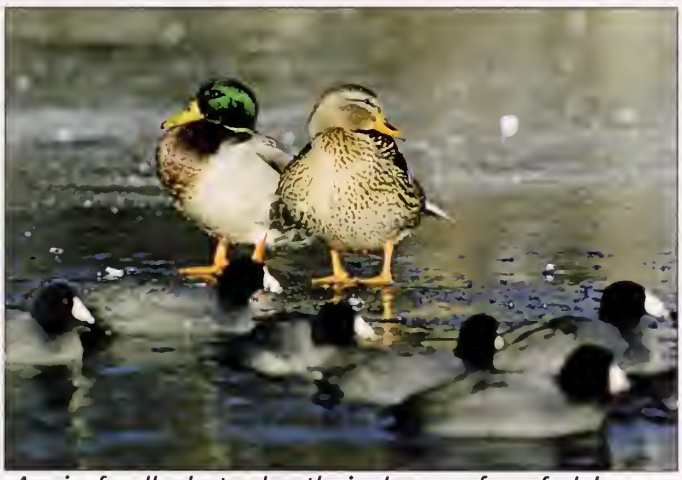
It's freezing cold outside, the wind is blowing hard, and the sky is a dull grey and threatening to spit snow. You're belly up to the wood stove with a good book so the last thing on your mind is going out and taking pictures, right?

But, think about it. What have you been saying to yourself all year long? Something like, "I wish I could go out and take more pictures," right? Well, now is the time to get out and do it! Make it your New Years Resolution! You've gotten all this great new digital equipment and now your excuse is..."it's too cold outside, I'll wait until spring when it's warmer?" WHIMP!! Are you a wildlife photographer or a mouse? (Hmmm, mice are out this time of year...)

Winter and yucky weather can actually offer some of the coolest (heh, heh) opportunities for great wildlife and nature photography! Just imagine ice entombed, red berries glistening in the afternoon sun, the patterns of fallen leaves captured in ice along the edge of a pond, snow falling silently over a cornfield, birds huddled for warmth on the branches of blackberry bushes, and so much more! Now is the time when fox are trotting around in their beautiful winter coats. Birds are swarming to bird feeders. Animals are hungry this time of year so they will come in to bait placed in front of blinds more readily. Easy pickings for us wildlife photographers! You just need to get out there and be prepared for the cold!

When I set up a cold weather blind, I dress accordingly. Polypropylene, or similar, underwear, warm over layers plus goose down outer coverings, a warm hat, and fingerless gloves, are a must. But, I think the biggest secret to staying warm is knee high goose down boots. When your feet are as toasty as your body and head, then you can sit for HOURS in a cold, wind blown blind. Here is one site where you can find knee high goose down boots; http://www.nunatakusa.com/Down_Booties_Chugach.htm If you're not the blind sitting type, I would still recommend all of the above but you'll be moving around so you won't need the goose down boots.

Winter can offer some of the most stunning opportunities for wildlife photographers so make this your New Years Resolution to get out there and have some fun in the cold! You'll be glad you did!



A pair of mallards stand on the iced over surface of a lake while a flotilla of coots pass in an open waterway. Pockets of open water on ice covered lakes and ponds can provide a perfect opportunity to capture some great waterfowl images in winter! © Lynda Richardson

Image of the Month

Congratulations go to Hank Vaders, of Lynchburg, for his up close and personal photograph of an opossum taken with his Olympus Stylus 400 digital camera.

You are invited to submit one to five of your best photographs to "Image of the Month:" Virginia Wildlife Magazine, P.O. Box 11104, 4010 West Broad Street, Richmond, VA 23230-1104. Send original slides, high quality prints, or high res jpeg files on disk and include a self addressed, stamped envelope or other shipping method for return. Also, please include any pertinent information regarding how and where you captured the images and what camera and settings you used. We look forward to seeing and sharing your work with the readers of Virginia Wildlife magazine!

On The Water

by Jim Crosby

What's a Kill Switch?

This is an excellent question to which every boat operator or skipper should know the answer. Knowing and understanding the function of the "kill switch" can save the day, the night and/or your life. I think this is a good subject for us to ponder during our winter lay-up.

Generally, a kill switch is one that breaks an electrical contact rather than makes one to serve its primary purpose.

Most mechanically powered watercraft has at least one. The one boaters are most familiar with is the ignition switch that is generally operated with a key. This key operated switch is used to start your boat's engine and turn it off along with the instrument panel devices and other electrical systems. It should never be left on for any length of time when the engine is not running because it could support a huge drain on your battery. Electrical components required when the engine is not running such as the horn, running lights, etc. should not be controlled through the ignition switch. They should be wired through another "kill switch" or the battery switch with the exception of the bilge pump. The bilge pump should always be wired direct from the battery because water collecting in your bilge can sink your boat when stored on the water.

I stopped by a friend's house one time and we decided to take a look at his boat parked in the yard. Well, we found the entire hull filled with rainwater and the trailer tires were close to bursting. He had made a huge mistake. He left the drain plug in the hull. The drain plug should always be removed just as soon as your boat is placed on a trailer thus eliminating the need to have your bilge pump powered.

Another "kill switch" is found in the battery cutoff switch. This is the one that can save your day or night on the water. If it is turned off when the boat is not in use, it can eliminate a voltage drain on your batteries—like maybe you left the radio turned on when you departed the boat. However, as pointed out before, if your vessel is left on the water, your bilge pump should always have power because leaks and/or rainwater can sink it. The safer way to go is have the bilge pump wired direct to the battery rather than through the battery switch for vessels left on the water.

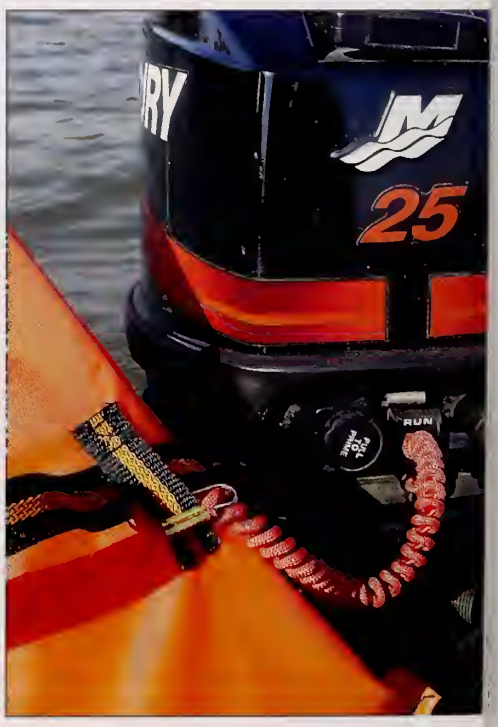
The last, but in many ways, the more important "kill switch" is the one inline with your engines electrical ignition system. It must be connected for the engine to run—and I am not talking about the ignition switch that is operated by a key. The "kill switch," as it is referred too most often, is the one located near the ignition switch. It has an international orange or other bright colored lanyard attached so you can hook it onto your person. The purpose of this switch is to kill the engine should the operator fall overboard. This is an extremely important safety consideration because run-a-way boats have the potential to kill people and do enormous damage.

Many boaters consider this device to be an annoyance and go to the extremes of cutting the lanyard off or disabling the device so they don't have to contend with it while boating. Of course, such action is contrary to law and you can be cited for not having one that was installed by the manufacturer, operational and in use.

The theory of its use is two-fold: 1.) It precludes a runaway vessel when an operator is not in control, and 2.) Keeps the boat nearby when the operator falls overboard instead of allowing it to run away.

Some additional thoughts to ponder include putting a life jacket on your boat key so it can float should it fall overboard. It is also a good idea to have a second ignition key made and kept in a secure place should your original become damaged or misplaced.

As an additional precaution, my battery "kill switch" is key operated so I can take it with me when I leave the boat. I just have to remember to leave it with the ignition key when I drop the boat off for repairs. □



VIRGINIA WILDLIFE OUTDOOR CATALOG

2006 Limited Edition *Virginia Wildlife* Collector's Knife

This year's knife has been customized for us by Buck Knives. Each knife is individually serial numbered, and comes with a distinctive rosewood handle and gold lettering. This year's knife also includes two white-tailed deer etched on the blade. This custom knife not only comes with a leather sheath, but also a custom made solid, cherry box with a decorative wildlife scene engraved on the cover.

Item #VW-406 $85.00 each

Virginia Wildlife Caps

Our caps feature three unique designs. Each cap is 100% cotton, size adjustable and embroidered with the *Virginia Wildlife* logo. $11.95 each

High profile - Camo with Black Letters - Item #VW-113
High profile - Blaze Orange - Item #VW114
High profile - Camo with Tan Letters - Item #VW112
High profile - Virginia Wildlife - Item #VW120
Low profile - Virginia Wildlife - Item #VW119

Limited Edition Collector's Plate and Stein

This collectable is titled "Winter Comfort" and is taken from an original painting by Bob Henley. Each plate and stein is individually serial numbered and has the year of issue on the back.

Plate ~~$22.95~~ Stein ~~$26.95~~

Item #VW-5000 NOW $ 29.00 for pair

Virginia Wildlife DVD

"A Professional Guide to Field Dressing, Skinning and Butchering White-Tailed Deer."

This video was produced to give you step-by-step instructions on how to field dress a deer as demonstrated by VDGIF Wildlife Biologist Ron Hughes. Then, professional butcher and hunter education instructor Rob Bingel demonstrates the best way to cape out a deer for mounting. The video really gets good when he shows in detail how to de-bone and professionally butcher a deer using only a knife and a hacksaw.

By the end of the video you will learn how to make butterfly chops, de-bone a front shoulder, tie up a roast using a butcher's knot, be able to identify all the proper cuts of meat on a deer, and more!

Item#VW250 $12.00 Includes S&H

Virginia Wildlife Music CD

Virginia Wildlife is excited to offer a compelling and lively array of classic Celtic and Appalachian music that celebrates Virginia's wildlife and natural resources. This musical journey is composed and performed by Timothy Seaman, of Williamsburg, Va., along with guest appearances from other musical masters. (Total time 66:32 min.)

Item #VW-219 $10.00 each

To Order

Visit the Department's Web Site at:
www.dgif.virginia.gov
Or Call (804) 367-2569

Please allow 3 to 4 weeks for delivery.

Happy New Year!

Give The Gift That Will Be Enjoyed All Year Long

VIRGINIA WILDLIFE MAGAZINE

For a limited time only you can give *Virginia Wildlife* magazine to 10 of your friends for only $10.00 each. That's a savings of $25 over the regular subscription price! This special holiday offer expires January 31, 2007.

Remember, even one subscription to *Virginia Wildlife* magazine is still a great gift at the low price of just $12.95 per year. Simply include the full name and address of the person or persons to whom you would like to send a subscription. All orders must be prepaid. Make your check payable to *Treasurer of Virginia*. Mail to Virginia Wildlife, P.O. Box 11104, Richmond, VA 23230-1104. Please allow 6-8 weeks for delivery.

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